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## MAKE THE ATLANTA ROAD CONGRESS THE BIGGEST EVER HELD.

EVERY county and State official in the South interested in any way in the building or maintenance of roads or streets ought to be making plans to attend the American Road Congress, which will meet in Atlanta next November. This ought to be made the greatest gathering of men interested in road building ever held in this country.

There is no other section of the country more vitally interested in the building and maintenance of roads. There are a thousand questions which must constantly present themselves to every county commissioner and to every road engineer, and many of them are difficult to answer.

What kind of material shall be used? How shall it be used?

Under what conditions shall roads be built or repaired?

What will be the best material for road making? Will it be brick, will it be concrete, will it be macadam, will it be sand-clay, or will a county in some cases be justified in having merely well-made good dirt roads?

Which kind of road will give the best service and in the long run prove the cheapest?

Will it be less expensive to the county to issue bonds and build thoroughly good roads of the highest type of material, or will it be better to drag along slowly and potter away, doing a little work here and a little work there, and trying to so patch up the roads as to make them at least passable?

What engineering will be required?

Are the officials now in office equal to supervising, laying out, building and maintaining roads?

Are the roads being used for political purposes in order to give jobs to superintendents or to day laborers?

What are the influences that are being brought to bear to induce the use of this material or that?

What are other counties doing?

What has been the effect of road building elsewhere on material, educational and religious progress?

These are a few of the many questions that must confront every man holding any official position in any way identified with road or street work. At the Atlanta Congress there will be the opportunity of studying these questions. Every phase of road building will be intelligently presented by experts. Probably every important line of machinery used in road building and every variety of material will be on exhibition. Hundreds of engineers and contractors and machinery makers will be there to study every phase of highway improvements.

It behooves the people of the South to see that

every county is represented by men of integrity who have an earnest desire to study every phase of this road question.

In advance of the meeting of the Congress all of these subjects should be actively discussed by the people of every county. They should be inquiring of their officials what answers they are prepared to make to these questions and how far they have studied them.

If the people of Atlanta want to do a great work for the South and for themselves, they ought to carry on in the near future an active campaign to induce the county officials of the South to come to this congress. They ought to induce counties that have made progress in road building to any marked extent to show what they have done and how they have done it. The backward counties that have not yet accomplished much ought to be stimulated to send their officials in order that they may catch the spirit of highway improvement.

## BUSINESS VALUE OF A NAME.

A STRIKING illustration of the strong position which an article of merit can create for itself by wide advertising and judicious management is shown in a recent occurrence in connection with Clinchfield coal. A few years ago, when this coal was introduced, it was unknown to the trade and its merits were not understood. Necessarily the market was limited. By skill and judgment in the handling of the coal and in establishing service bureaus of scientific men for the purpose of teaching consumers how to get the best results, and through a broad campaign of advertising, the Clinchfield coal has been made so widely and favorably known that the company was recently in a position to refuse to shade its price a single cent even in order to secure a renewal of a contract for 100,000 or more tons. Some of the large cotton-mill interests in South Carolina, under the impression that it would be possible to force down the price of Clinchfield coal, refused to renew a contract except at a somewhat lower rate. The Clinchfield people, realizing the intrinsic value of their coal, and knowing that they had created for it a market sufficiently broad to take care of every ton they could mine this year, refused to enter into any price-cutting contest for the new contract or to shade their price in the slightest. Thus the loss of one big contract was an advantage in that it demonstrated the strength of the company's position in its ability to market all its output at full prices.

Fortunately, there is a sufficiently strong demand for Clinchfield coal to justify this position. And it is especially fortunate for the good of all interests that the company took that stand. The effort to beat down prices of coal and iron and other products eventually reacts on the buyers by destroying business confidence and bringing about general depression. Declining prices, therefore, though they may at the moment enable a man to buy a little cheaper, are in the end the undoing of trade. If the Clinchfield coal had been dependent upon the cotton-mill interests for a market, it would have been compelled to close some of its mines or else to accept the dictation of the buyers. It did not have to do either. Its ability to take this position was not only due to the quality of the coal and to the good way in which its business operations had been handled, but largely to the very broad, comprehensive advertising which the company has carried on for several years to such an extent that "Clinchfield" has made for itself a name throughout the coal-consuming world.

Many other concerns would save themselves from embarrassing position if they would create for their

products by wide advertising the acquaintanceship of all possible buyers. Advertising in this way adds a permanent value of far-reaching importance wherever persistently and comprehensively furthered. The story about Clinchfield is given as a moral which should be heeded by thousands of other concerns.

## SUMMONS OF THE SOUTH.

### VII.—TRANSPORTATION FACILITIES.

ONE billion three hundred and fifty-five million dollars, at least, have been spent in railroad construction and equipment in the South since 1900. A like amount must be spent within the next ten years if the South is to be equipped as it should be with transportation facilities equal to the demand. In the meantime, half a billion dollars will in all probability be spent upon highway improvement, and perhaps a hundred million dollars in making the waterways of the South as useful as possible as a part of the transportation system of the section.

The length of Southern railroads is now within a few hundred miles of the length of all the railroads in the country in 1880. Since that year 67,818 miles of railroad have been built in the South—30,804 of them since 1900. The length added in the past fourteen years is nearly 6000 miles greater than the total mileage of the South in 1880. The increase in 34 years is shown in the following table:

#### SOUTHERN RAILROADS, MILEAGE.

States.	1880.	1914.
Alabama .....	1,843	5,524
Arkansas .....	859	5,439
Florida .....	518	5,184
Georgia .....	2,459	7,536
Kentucky .....	1,530	4,043
Louisiana .....	652	5,473
Maryland .....	1,040	1,624
Mississippi .....	1,127	4,384
Missouri .....	3,965	8,263
North Carolina .....	1,486	5,709
Oklahoma .....	289	6,497
South Carolina .....	1,427	3,715
Tennessee .....	1,843	4,192
Texas .....	3,244	16,409
Virginia .....	1,893	4,686
West Virginia .....	691	4,006
Total .....	24,866	92,684
United States .....	93,262	252,000

\*Including District of Columbia.

In the period the greatest activity in railroad building in any decade was between 1880 and 1890, when the average was 2548 miles a year. In the next decade the average fell to 1153 miles a year, but increased between 1900 and 1910 to an average of 2520 miles. In the four years, 1910-13 inclusive, the annual average has been but 1911 miles. The whole period since the turn of the century has been characterized by wide fluctuations in the annual average of railroad construction in the South reflecting the country's business depressions and the uncertainties of the time. There was a decrease in annual construction from 4099 miles in 1902 to 2405 miles in 1904, and from 3331 miles in 1907 to 1761 miles in 1908, the greatest amount constructed in any year since 1908 having been 1048 miles in 1910, while the construction last year of 1754 miles was the smallest in the present century. In spite of these fluctuations there has been a notable increase in the total amount of money spent upon railroads and their equipment. The value of railroads in the South in 1880 was quite \$750,000,000. Their value now is more than \$3,300,000,000, that amount representing the actual cost of building more than 30,000 miles of road, of terminals and of equipment, and hardly considering the intangible assets in fran-

chises and favorable location. It is undoubtedly much less than the amount that would be required to duplicate the system today. In the following table are shown the increases in the value of railroads and their equipment by States, the figures for 1900 being those of the census and those for 1914 being conservatively estimated:

## RAILROADS AND EQUIPMENT, VALUE.

States.	1900.	*1914.
Alabama .....	\$122,554,000	\$182,314,000
Arkansas .....	87,360,000	174,048,000
District of Columbia..	4,762,000	20,000,000
Florida .....	65,980,000	119,232,000
Georgia .....	124,344,000	188,400,000
Kentucky .....	128,520,000	194,064,000
Louisiana .....	79,072,000	196,082,000
Maryland .....	110,080,000	153,024,000
Mississippi .....	81,760,000	140,388,000
Missouri .....	247,500,000	322,257,000
North Carolina..	95,775,000	165,560,000
Oklahoma .....	59,400,000	201,407,000
South Carolina..	59,178,000	93,075,000
Tennessee .....	100,384,000	159,296,000
Texas .....	197,720,000	344,589,000
Virginia .....	173,834,000	262,416,000
West Virginia.....	111,400,000	288,432,000
<b>Total.....</b>	<b>\$1,849,623,000</b>	<b>\$3,204,584,000</b>
<b>United States.....</b>	<b>\$9,035,732,000</b>	<b>\$13,860,000,000</b>

\*Estimated.

In 1880 the largest railroad system in the South operated 3229 miles. Below the Potomac there was practically no double track, and uniformity of gauge for any great distance was the exception. Equipment was poor for the most part, and stations were in many instances of a primitive order. Today there are four systems operating more than 3000 miles; tracks have been standardized pretty generally, short lines and branches have been linked into great systems, double tracking is being advanced as means are provided, handsome stations have been erected at many points, and hundreds of millions of dollars have been spent for up-to-date equipment and upon splendid terminals at tidewater and at strategic points in the interior.

Conditions of many kinds have been responsible for a slackening in the past few years of activity in railroad improvements and, in some cases, for actual deterioration. Meanwhile, the necessity for such improvements has become more urgent and is bound to persist until such facilities equal the demands of all-round agricultural, industrial and commercial development of the South.

The South's task to be accomplished in railroad construction is emphasized by a few comparisons. In 1880 the whole country had an average of one mile of railroad to every 32 square miles of its area, and its population averaged 540 for each mile of railroad. Today the South has an average of one mile of railroad for every ten square miles of its area, and its population averages 370 for every mile of railroad. Superficially, a better railroad situation is thus indicated for the South than that enjoyed by the whole country in 1880. In many respects that is much more than superficially true. But, considering the potentialities in the South for profitable investment in railroads, far superior to those of any like area, its equipment is by no means adequate. New England, for instance, dependent upon the South for much of the material upon which its prosperity is based, has an average of nearly 820 population for every mile of its railroad and an average of one mile of railroad for every seven miles of its area. Pennsylvania's population averages 687 for each mile of its railroad, and it has one mile of railroad for every 3.7 square miles of area. Illinois has one mile of railroad for every 4.5 square miles of area, and its population averages 490 for each mile of railroads.

When the South has a railroad mileage in proportion to its area commensurate with that of New England or with that of Pennsylvania, it will have 129,500 miles of railroad in the one case, or, in the other case, 255,000 miles, a length equal to that of the whole country today, and when its population is in like commensurate proportion it will have a population of 105,000,000 in the one case or 175,000,000 in the other. The density of its population will then be less in the one case than that at present in Maryland, and, in the other case, it would be only one-fifth of that of Rhode Island, the most densely populated State in this country, but which, however, has an average of 110 persons to the square mile less than the average of Belgium.

Extensive as this needed railroad construction is, involving, as it does, double tracking, improvement of stations and enlargement of terminals, together with vast additions to rolling stock, its completion is to be accompanied by a betterment of other transportation facilities. Steam railroad terminals at tidewater will emphasize the importance of the twenty-odd ports on the Atlantic and Gulf coasts in the sixteen customs districts of the South, with its coast line of 3007 miles. These ports are included in the waterways of the South, for the improvement of which have already been appropriated \$287,000,000, or 41 per cent. of the \$707,000,000 appropriated for rivers and harbors in the whole country. Other millions are to be spent in perfecting the more than 18,000 miles of navigable length of the South's inland waterways, the advantages of which are only beginning to be realized with the use of self-propelled barges and motor boats of various kinds. Traffic possibilities in such waterways are strikingly suggestive in the fact that only four of the sixty parishes of Louisiana have no stream which is not navigated or is not susceptible of being made navigable at a reasonable cost.

In the upper stretches of many of these streams of the South are great water-powers which have only begun to receive their full hydro-electric development. But in some parts of the South, especially in the Piedmont section, hydro-electric transmission lines have become distinct and striking features of the landscape, and their extension marks a notable growth of electric interurban railroads connecting with street-railway systems and destined to become a most important factor in transportation.

Supplementing steam railroads, electric lines and waterways will be improved highways. The aggregate length of public roads in the South is about 850,000 miles, of which less than 60,000 miles have been improved. But upon the roads are now being expended annually at least \$50,000,000 by way of State-aid county or district bond issues and local revenues. Linking up of improved highways will provide not only great stretches convenient for pleasure or business, but will also result in a system of roads touching the railroads at many points and offering the opportunity for the employment of hundreds of thousands of motor trucks in local freight traffic or as feeders to interstate traffic by the railroads.

All of these facilities will be required within the next few years in the well-rounded development of the South. The sooner they are provided the sooner will the South come into its own.

## INDUSTRIOUS SHIRKERS OF WORK.

IT is time for the business men of this country to "speak out in meeting." Politicians, would-be statesmen and ranting demagogues have had full sway for many years. The country is paying the penalty of the agitations of the last ten or twelve years. In press, and at times from the pulpit, often in colleges, and constantly in yellow journalism, the country has been fed on false doctrines. An effort has been made to make the people believe that the world owed them a living without the necessity of their working enough to collect the debt. As a result, we see the rise of the "Industrious Shirkers of Work," and their name is legion. The faithful, hard-working man, whatever may be his trade or his profession, whether on the farm or in the factory, on the street or in the counting-room, is paying the cost of carrying the burden of inactivity and depression of business developed by those who are actively engaged in shirking work.

We have been living in a period of fads, and the faddists have been living on the community. We have talked about the middleman between the producer and the consumer being responsible for the high cost of living. It is not the commission man handling the produce of the country that is bringing about this high cost, but the middlemen whose only occupation is that of developing some fad by which he may live by his wits, and live on the producer and consumer alike. He is a double-headed leech.

For years public sentiment has put a premium on the work of the faddist in sociology, in theology, in education and in politics, and discredited the constructive upbuilding forces which made possible the amazing advance of America for half a century be-

fore we commenced to give more attention to the vaporings of the faddist and the wild theories of cross-roads politicians who could never have earned a respectable living in any other occupation, than to the sober words of men of genius who developed our agriculture, who opened our coal and iron and copper mines, who constructed our railroads, who made possible the telephone and all other methods of transportation of things and thought, or who established our educational work and taught the highest standard of ethics. Too many young men of today have been made to believe to a very large extent that the shirker is better than the worker; that industry and perseverance and honesty and intelligence no longer count.

The men whose genius made possible the wonderful advancement of our land have permitted yellow journalism, yellow professorshipism and yellow pulpism to mislead the country and carry it blindly very close, not merely to a ditch, but to a yawning chasm where ruin and destruction would await its coming.

A few days ago the writer, meeting an unusually intelligent farmer in a road between Richmond and Charlottesville, which for intolerable badness, for bottomless mudholes, surpasses any other ever seen in many thousands of miles of travel, asked the good farmer, whose land was nearby, why the county did not have better roads. Somewhat jocularly he replied: "We are rich enough to have good roads; we pay enough taxes; but the politicians and the officeholders get all the money." And then he laughed, as though it was a good joke that he and others were permitting themselves to be robbed of good roads by the officeholders and the politicians.

Whether his statement be literally true or not as to the absorption of money by officeholders and politicians, the conditions and his apparent indifference to what he believed to be true are to a large extent indicative of the spirit of our people everywhere. Our business men are putting up with intolerably bad business conditions because, like the farmer, they do not assert their power. They permit themselves and the country to be ruled and very nearly ruined, just like the good-natured Virginia farmer was permitting his county to put up with roads that were not even paved with good intentions. The lives of that farmer and his family are burdened by roads so impassably bad that travel is well-nigh impossible, and profitable farming, or, at least, farming as profitable as it ought to be is quite impossible, because he and his neighbors sit down supinely and let their county be run by others. The business men of the country are trying to drag the car of business operations over almost impassable roads, with economic mudholes so deep that many of them drop into them never to come out, because they will not rise in their power and unite for the domination of a country which belongs to them and not to the politicians.

We are justly berating the outrages of the Industrial Workers of the World, whose leaders' chief occupation is to shirk work. They want a living without the bother of working to make it. Are not the business people of this country—and in this we class not simply the manufacturers and the merchants and the bankers, but every honest laborer, whether he works with pick and shovel in the coal mine or on the street, whether in the factory or on the farm, whether in the counting-room or behind the counter, for all are business men vitally interested in national prosperity—industriously shirking their responsibilities? Are they not trusting that somehow in some way the situation will work out all right, just as the Virginia farmer hoped that some day the county might have good roads, and yet was making no effort to secure the good roads? As the Industrial Workers of the World are shirking all work, are not the substantial people of the country, substantial in character, whether in money or not, industriously shirking the work which they ought to be doing in bringing about better conditions for material advancement, which is essential to all other advancement? Why blame the ignorant, misled foreigner who parades the streets as an Industrial Worker of the World, without taking some active, aggressive steps to counteract the business conditions and the spirit of unrest created by the faddists of the day which make possible the lack of employment that gives rise to many of these unfavorable conditions which our country faces?



## HOW NEW ENGLAND DOES IT.

THE value of advertising—advertising on a broad and comprehensive scale—to attract tourists is shown in the full half-page announcements which are being carried in many of the daily papers of the country by the New York, New Haven & Hartford Railroad. That road and its subsidiaries are advertising New England as "The Vacation Land." They are making their statements so strong and attractive that everybody who is thinking about a summer trip will want to find out what New England has to offer. Moreover, thousands of people who haven't probably had it in mind to take a summer trip will be tempted by these advertisements to think of New England and plan to make a trip there this summer.

The mountains of the Virginias and North Carolina are more beautiful than the mountains of New England. The climate is equally as attractive, and that section is as worthy of broad and comprehensive advertising as is New England as a vacation land. A large portion of the South, stretching from the mountains of North Carolina through the sand-hill region, on down to Florida and along the Gulf coast and out to San Antonio, is an unequalled region as a winter resort. There are more reasons and stronger reasons for Northern and Western people seeking the balmy climate of the South during the winter than for other people to seek New England during the summer. Some splendid work has been done by the railroads of the South in making known the advantages of this section and in broadly advertising it, but not one-half enough has yet been done. Next fall there ought to be a campaign through every great daily paper in the North and West of such broad advertising of the South as a winter resort as to crowd this section with many thousands of visitors more than it has ever had.

The railroads can well afford to make a careful study of what the New England roads can do in attracting attention to New England.

## COLD-STORAGE PLANTS NEEDED.

THE Commercial Club of Orange, Tex., in a letter published elsewhere in this issue, calls attention to the need of cold storage of tropical fruits at that point, and this suggests that there are many points in the South where cold-storage plants are needed and where they ought to prove profitable investments. A large cold-storage plant in operation at Norfolk has materially changed the handling of many products at that point and developed very extensive business. The managers of the Union Terminal Warehouse of Jacksonville have had in mind to establish a large cold-storage plant in connection with that enterprise. It is greatly needed. Florida is the producer of millions of boxes of grapefruit and oranges, and not only Jacksonville, but other points in the State need cold-storage plants badly. A plant established at Jacksonville in connection with the Union Terminal Warehouse would doubtless immediately command a heavy business and result in great benefit to growers, shippers and buyers of citrus fruits and other products. At other points in the South similar enterprises should be established. The South has not yet made as much advance in the establishment of cold-storage warehouses as its needs require.

## A Steamer for the Everglades.

The Gulf & Atlantic Steamship Co., Fort Myers, Fla., will build a new three-decked steamer for use through the Everglades to Fort Lauderdale via Lake Okeechobee and the drainage canals. The steamer will use either gasoline, coal oil or fuel oil in its furnaces. This vessel will be 84 feet 6 inches long and 21 feet 6 inches beam, and will draw not more than 20 inches of water. It will have sleeping accommodations for 70 persons besides the crew. G. F. Stanton is president and manager of the company; H. A. Bourne, vice-president; R. W. Randall, secretary, and Chas. H. Lee, treasurer.

Denton (N. C.) Knitting Mill Co. has been organized with a capital stock of \$10,000.

## The Rate Increase—And Afterward

By CHARLES CATLETT of Staunton, Va.

No one can consider the pending application for an increase of rates by the Eastern roads before the Interstate Commerce Commission without questioning whether judgment has not already been delivered in the negative, even if the increase is granted.

This may seem a paradox unless we consider that the questions incidental to the specific request for an increase in rates are really greater than the increase itself.

What are some of these questions?

The railroads are quasi-public in their organization, and to a certain extent monopolistics in their operations. It is on these accounts that the sense of the country has come to recognize the desirability of supervision and to some extent of controlling the railroads in the interest of the public as a whole. In other words, the shippers should, through governmental representation, exercise a certain control over railroad rates and railroad operation. Though some of them sigh for the good old times when they could do as they pleased, the better railroad men see the need of this control, and there are railroad men of broad vision who are actually enthusiastic as to the great constructive work which has been done by the Interstate Commerce Commission, which they believe will in time be of great good both for the roads and for the public.

The question of supervision and control is no longer debatable; but it is of vital interest to the life of the railroads as they are at present constituted, and to their stockholders and bondholders and to those who may consider becoming so, to know the extent and character of such control. Whether it will be sympathetic or antagonistic; whether it will be broad or narrow; whether it will be based on sound information or evolved from a depth of ignorance; whether it will be theoretical or practical; whether it will be broadly in the interest of the road and of the whole people or swayed by temporary popular clamor; whether the control will be flexible enough to adapt itself promptly to new conditions, and yet of so clear a view and fixed a purpose that broad and comprehensive plans may be based upon it, are some of the questions which are still debatable and which have not yet been definitely answered.

The questions will only be fully answered as the result of the experience and the education of the railroads, the controlling body and the general public. But how far has the education proceeded? What can we depend on in the future?

A great many months ago far-seeing railroad men of great experience realized that a general slacking of business was before them. Could they during that slack time make those expenditures which would utilize their forces and equipment to the best advantage? Could they make expenditures which would be wise and prudent for the future and absolutely necessary if they were to properly serve the public? To do so money must be raised. To raise this money would have been easy if the request for power to increase rates had been promptly granted. It is only after so long a time, and the trend of events has brought about the very condition that was anticipated by the better-informed railroad men, and which they sought to delay, if not avert, that the counsel of the commission has reluctantly conceded that some relief should be granted. In the meantime men, equipment and capital have remained idle that could have been employed, and months have been lost that can never be regained. In addition, there has been lost the favorable or psychological time for raising money.

One question has been, "Will you promptly help us to secure on favorable terms the money needed to do the right things at the best time?"

The answer has been "No."

Even if increase is granted now as a matter of absolute necessity will it restore the lost opportunities and will it materially help the roads to gain the cash they need? I doubt it. The delay has developed new doubts and new uncertainties. The rate increase, taken by itself, is really a proposition to overturn a natural law, and is only justifiable on the principle that to overturn a box twice will bring it back to its upright position.

On the face of it, how absurd it is to endeavor in a falling market to increase shipments by increasing the cost of service!

On account of its monopolistic character, a railroad will receive a certain amount of freight whatever may be its charges and whatever may be its service, but it is

true of railroads, as it is true of other industrial operations, that low charges and good service tend to increase the volume of traffic that will be offered and handled, while high charges or poor service tend to reduce the amount. And the first consideration with a railroad, even more than with an industrial plant, is volume.

The normal process to be followed by a railroad in the great recurring periods of prosperity or depression which are inevitable, and will in a certain degree continue to be so, would be to pay more for supplies and for labor during times of prosperity and to charge more for the service rendered. While in times of depression the natural course of the railroad would be to pay less for supplies and material and labor and capital, and by charging less for what it has to sell—transportation—endeavor to increase the tonnage which would be offered.

But the railroads cannot follow these natural laws. Capital, which is abundant, cannot be gotten cheaply because of the distrust or uncertainty as to what the control will be. Labor cannot be gotten for less because, though it is abundant, it has been practically agreed by everyone, and as a result of public and governmental pressure, that every other expedient must be tried first, and there is nothing else to do but to overturn the box again and increase freight rates. But the increase, if it comes now, will be of far less value in many ways than if it had come months ago. It will depress trade, not increase it.

The financial papers say that an increase is anticipated and that the market has discounted it, but stocks pursue the even tenor of their way, and the way is downward. The delay in granting the increase has thrown the whole industrial structure out of alignment.

But another great question has been asked which can only be answered finally by a horizontal increase in rates large enough to be worth while and to carry a "punch" right back to the shipper. It is clearly a duty of the Interstate Commerce Commission to seek out and correct isolated cases of inequality or favoritism, but to do so does not touch the real question. The correction of terminal and tap-line inequalities will not do so. It must be wider in its scope.

It has been claimed many times, without contradiction, that the freight rates in this country are the lowest in the world. I am willing to acknowledge that there have been and are cases of extortion and inequality; but, more broadly, I challenge that this country could not have made the wonderful strides it has in wealth and industrial development without the railroad rates being on the whole just and reasonable.

In ever-increasing volume the employees, the public and the various divisions of government are endeavoring in many ways to realize the old railroad man's motto and are seeking to ascertain "what the railroads will bear." It is certain that they will not cease the experiment until either the railroads are bankrupt or there is brought home to the shipping public the inevitable truth that whatever happens, the shipping public "pays the freight."

I do not believe the above statement of the reasonableness of rates as a whole can be successfully controverted, and when, therefore, by action of the public, the employees and the political divisions of the country the costs laid on the railroads are increased, the quicker a proper portion is shifted back to the public the quicker we will reach the end of railroad baiting and the better it will be for all concerned.

"The public objects to our lightening these burdens in the natural way. In one form or another the burden must ultimately come back to the public. We ask a ruling that will enable the public to realize that when they lay heavy burdens on the railroads they will promptly come back to the people."

The answer has been "No."

No one can watch the course of the investigation without realizing that this thought has played no part in the considerations. Substantially it has been said that if the roads are in danger of failure, in whole or in part, some relief will be permitted, but instead of passing it back to the general public every effort is being sought to accomplish relief in some other way, and when the increase comes, if it does come, it will be hard for the public to realize that its actions are responsible for it, but rather that it has been brought

about by circumstances over which the people could have exercised no control.

I have touched on but two of the questions which seem to me to lie back of and above a request for permission to break a natural law by increasing prices in a time of depression. There are others which also tend

to show that with the 5 per cent. granted we will still be far from a permanent solution of the relations between the various interests, and however greatly the roads need the increase in rates, its value has been greatly lessened by a failure to consider the proposition broadly and grant it promptly.

## Phases of the Railroad Problem \*

By LOGAN G. MCPHERSON, Lecturer on Transportation at Johns Hopkins University.

### III.—RAILWAY CO-OPERATION.

Railway competition, as it now exists, is in some ways beneficial and in other ways distinctly harmful.

Competing lines vie with each other in providing faster service and better service for competitive traffic. As the greater volume of traffic is between the principal centers of industry and commerce, more trains and faster trains are run between those centers. Quick service is desirable, but when it is maintained under conditions that interfere with the satisfactory movement of other traffic the results are unfortunate. The expense of service increases at a far greater ratio than the speed of service, and therefore competing service, when forced at an undue pace, compels expenditure out of proportion to the revenue from the traffic carried. Competition for passenger traffic between these large centers has brought about the running of fast trains, and an excessive number of fast trains, for the purpose of attracting through travel. To an extent they serve the needs of passengers from and to intermediate stations, but the result in many parts of the country is an excessive through passenger service and a more or less inadequate way service.

There are other ways in which competition between railways, and especially those serving the same geographical or commercial district, militates against the best service. The distribution of cars and locomotives to places where they are needed, and as they are needed, could be effected more speedily and satisfactorily, and with greater economy, than under present conditions. The present system often brings about a surplus of equipment in one place while there is lack in another. Terminal yards and switching tracks, especially in the larger cities, could be more effectively used for the common good under the administration of one company giving all shippers the benefit of such facilities upon equal terms. As it is now, an industry on the line of one railroad in a large city frequently has to pay switching charges on freight cars consigned to it over the lines of another and competing company. This handicaps the shippers whose plants are situated upon a competing line.

During the regime of unrestrained competition there developed a tendency on the part of the railway lines to coalesce to the end of diminishing competition and forwarding co-operation. There was not only combination to maintain rates, but advance in that physical combination by means of which more satisfactory and more economical service can be given. There was first the combination of short, separate and connecting lines into continuous routes. Then there was the amalgamation of branch lines with main lines, facilitating the flow of traffic. Then there was the amalgamation of competing lines. There is probably not a principal railway system in the country that is not made up in greater part of what were originally short local roads, some of them connecting and others to a greater or less extent competing. Indeed, each of many systems is now made up of as many as 30 or 40 or even more of what were originally short local lines. The advantages of such amalgamation consist in the better distribution and utilization of equipment to meet the industrial and commercial needs of the region served, and in the fact that there is no longer necessary conference between the managers of several different and independent railways when it is desired to arrange schedules and other facilities for the movement of through traffic. Such matters are better adjusted by centralized authority having full information as to the needs of the entire territory.

Such combinations and amalgamations extended until, in each of the great geographical divisions of the United States, by far the greater number of the railways had come to be part of one or another great railway system. In line with this tendency came the combination of the great systems themselves. This tendency received its greatest impetus at the time when the tendency toward combination throughout the field of industry and com-

merce had become so marked as to arouse an antagonistic public sentiment, which also came to be directed against the railway combinations. Combination or partial combination proceeded in different ways. There was the purchase or lease of one railroad by another; purchase by one railroad of enough of the stock of another to secure a controlling interest in its administration, and the device known as the holding company, having such large proprietary interests in two or more companies as to give it the control of their administration. So much of the popular antagonism has been against the financial methods by which amalgamation or partial combination has been effected that the advantages of such combination under equitable financial procedure have been lost to sight. It is quite true that at times prosperous railway systems have been burdened with weak lines unloaded upon them under iniquitous terms for personal profit, and certain holding companies have been organized solely to serve selfish ends. The revelation of such practices may for a time obscure, but it cannot set aside the fact that the principle of railway combination when equitably applied results in benefits that inure to the common good.

In other respects there has been a development of the railways in the way of pulling together. In the earlier days, when a shipment of freight was carried over the lines of more than one railroad company, the division of the transportation charge and the allocation of the responsibility for loss or damage between the various lines was a cumbersome process. Through the years there has developed a mechanism of bills of lading, way-billing, interline accounting and adjustment through which such shipments are recorded and the receipts apportioned with a maximum of accuracy and minimum of intricacy. There is now an equally satisfactory mechanism through which similar service is performed for passenger traffic. Various associations of railway officers are continually considering improvements in practice and procedure of all kinds. The operations of the railways have attained a homogeneity and uniformity that could only have been brought about through such experiences as has attended their development and led to co-operation.

The freight cars of one railroad can now be consigned with through shipments over every other railroad in the United States. Indeed, the common use of freight cars has so increased that the pooling of all the freight cars in the United States under common ownership has been seriously considered.

In still another respect railways have been learning to pull together. In the era of unrestrained competition, competing railway companies often built, for their respective exclusive use, lines that were virtually parallel for considerable distances, especially when approaching a large industrial or commercial center. Such competitive construction was often an economic waste, in that there was not sufficient traffic to justify the duplication. In recent years railways have come in many cases to use the same tracks under rental, joint trackage agreements or other arrangements giving adequate facilities to each company without entailing the waste of duplicate construction.

During the era of unrestrained competition a large and expensive soliciting force maintained by each principal competitive railway exerted a considerable part of its efforts in the endeavor to take traffic from another line over which it could as well be carried. In recent years the efforts of the traffic officials have more and more been directed toward increasing the volume of traffic of their respective lines by the development of new traffic. Many of the companies have established industrial departments for the purpose of inducing manufacturers to establish plants at suitable places along their lines. Many have run agricultural demonstration trains with lecturers, and some have established farm improvement departments to demonstrate to the farmers how best to rotate their crops and in-

crease crop production by scientific methods. These departments also co-operate with manufacturers and farmers in extending their markets.

The strongest and most extended combination which has brought pressure to bear upon the railroads is that of the public in general acting through Federal and State legislatures and Federal and State commissions. There is a perceptible tendency on the part of the regulating authorities to regard the railways somewhat less in the light of separate corporate entities, and more in the light of servants in common of the public in common. In preparing information requested by these various bodies, and in discussing various proposals emanating from them, the railways are coming more and more to act in common, and often through common agencies.

In so far as the convenience and economy and the general efficiency of physical operation are concerned, there is no sound argument that can be advanced against the combination of railroads serving a common territory, provided there are efficient safeguards against the abuses latent in such combination when unregulated. Under the present status of governmental regulation, if there is any tendency on the part of such a combination to provide insufficient facilities, or in other respects not properly to fulfill its functions, the public authorities have full power to investigate, to apply a remedy, or in any event to bring the dereliction to public knowledge.

It would seem that practical as well as theoretical considerations are all in favor of such combinations of railways as will enable them best to serve the needs of industry and commerce, most efficiently and economically to perform the function of transportation, most satisfactorily to adjust the questions that arise with shippers, with railway brotherhoods and with governmental legislative and regulatory bodies.

The concentration of the administration of all the railways of the country under a single management would doubtless prove unwieldy by reason of the magnitude of the interests and of their diversity. The concentration of administration of all lines in a particular traffic region does not present such difficulties. Such a combination would be a forward step in economic progress.

### Will Need Cold-Storage Plant.

Commercial Club,  
Orange, Tex., May 16.

Editor *Manufacturers Record*:

As you are probably aware, Orange will shortly become a deep-water port. Within the next few months our channel will be complete to 25 feet to the Gulf of Mexico, and Orange expects to take front rank as one of the new inland ports of the Gulf.

One of Orange's greatest needs will be a cold-storage plant to handle tropical fruits in bulk, and we stand ready to provide a large part of the capital necessary to erect such a plant, provided we could get the right kind of a man to erect and operate it, and it struck me that possibly, with your vast knowledge of the Southern territory, you might be able to put us in touch with such a man.

We will have plenty of outbound tonnage, bound principally for Jamaica, Honduras and South America, and feel we will have no trouble in securing plenty of vessels to handle this, provided we can make some arrangements to handle their inbound cargoes.

H. S. L'HOMMEDIEU, Secretary.

### Iron and Steel Products in 1913.

The total production of beams, beam girders, zee bars, tees, channels, angles and other forms of heavy iron and steel structural shapes in 1913 amounted to 3,004,889 gross tons, according to a special bulletin of the Bureau of Statistics of the American Iron and Steel Institute. The production of iron and steel wire rods was 2,464,807 tons, of iron and steel wire nails 13,559,727 kegs of 100 pounds, and of iron and steel cut nails 842,038 kegs.

### Extent of Lumber Industry.

Striking facts regarding our forest resources, their value and their waste, are condensed in an eight-page illustrated circular of the American Forestry Association just issued. The lumber industry is said to employ 735,000 people, to whom are paid annually \$367,000,000 in wages, the worth of products being \$1,250,000,000. The forests of the country cover 550,000,000 acres.

\*Abstract of a lecture on May 15, 1914.



# In a Network of Transmission Lines

## CHATTANOOGA A CENTER OF DEVELOPMENT OF SOUTHERN HYDRO-ELECTRIC POWER.

[Special Correspondence Manufacturers Record.]

Chattanooga, Tenn., May 15.

Fairly swimming in hydro-electric power, Chattanooga is one of the cities of the Appalachian South to be counted on for a really gigantic industrial development. The Tennessee River is harnessed at Hale's bar—33 miles below here by the tortuous river course, 12 miles as the crow flies—where a 56,000-horse-power development has been made to date by the Chattanooga & Tennessee River Power Co., with possibilities of a total of 100,000 horse-power when additional units of machinery shall have been installed. Before the inauguration of this service, in November, 1913, the Tennessee Power Co. had developed 55,000 horse-power on the Ocoee, near Cleveland, and was delivering power to Chattanooga, Nashville, Knoxville and elsewhere. This strong Philadelphia company has power sites capable of a total development of 170,000 horse-power hydro-electric, and has auxiliary steam plants with 40,000 additional horse-power capacity at this time.

Every requirement of present Chattanooga power users is met with less than 50,000 horse-power, so it is manifest that the interests of these companies lie in the direction of securing large additional users of power. On the one hand, while the abundance and availability of cheap power operates as a magnet to draw attention of operators everywhere to conditions existing here.

The world has not yet awakened to a realization of the South's amazing progress in the line of hydro-electric development. Already a veritable network of transmission lines covers the entire Appalachian country, and centers like Chattanooga have been put in a particularly strong position as a location for industrial activities. With raw materials—iron, clays, timber, cotton, etc.—and with labor in abundance, good and not high-priced, and with a favorable all-the-year climate and transportation lines in every direction, the addition of hydro-electric power in large quantities and at cheap rates completes a situation which makes a steady, continuous and enormous development a matter of absolute certainty. Outside the cases where power cost is a big factor, it is a matter of great economy in installation as well as an attractive item in the way of convenience and dependableness to be in position to command any amount of power desired by simply turning a switch.

Chattanooga is getting the benefit of this situation all the time, and must continue to feel the impulse in increasing ratio as the outside world becomes more familiar with conditions here. This is a great railroad center; it is on navigable water; the location of the city is charmingly picturesque and most interesting historically, and there is a particularly good all-the-year climate. There is a wide-awake citizenry, and the forward move is now well on. Including the suburbs, where the industries are mainly located, there is a population here now of 102,321, according to the computations of the directory publishers. The city limits are purposely restricted to four square miles to relieve the factories from the burdens of city taxes. Within these four square miles there is a population of 55,000, in round numbers.

Beyond the factories, and clustering among the hills and perched on the mountain sides and tops of Lookout Mountain, Signal Point and Walden's Ridge there are being built some of the most pretentious of the new homes constructed in recent days.

Chattanooga's business men are organized for effective work better than most cities can show. Working with the Chamber of Commerce, itself a most alert, aggressive and efficient body, is the Chattanooga Manufacturers' Association, which is a model other cities in the country are glad to pattern after. It has 140 members, and they must be "actual manufacturers, whose chief, not incidental business, is manufacturing, and whose product is sold to dealers in the trade." Under this strict definition the butcher, baker, tailor, milliner, dressmaker, etc., are not eligible to membership, and only bona fide manufacturers belong. It is an interesting fact that this membership represents \$31,326,000 invested in manufacturing in Chattanooga.

Exact figures as to totals are not obtainable. Some estimates are that \$50,000,000 represents the total investment in manufacturing here. Secretary Bunn of the Manufacturers' Association considers this excessive.

The members of the association are leaders in their line, and he believes it impossible for there to be anything like \$18,000,000 invested by those not members of the association. The United States census report of 1910, figured on returns of 1900, are as badly off in the other direction. More attention is being paid to matters of statistics now than heretofore, and at the next United States census a much more accurate showing will be made than heretofore.

The affairs of the Manufacturers' Association are handled by a board of 13 governors. A meeting is held every Friday, between 1 and 2 o'clock, absolute—just 60 minutes, and beginning at 1 o'clock precisely. Six constitute a quorum, and in the 10 years of its existence there has never failed to be a quorum on hand, and most generally as many as nine. This furnishes a key to the spirit of earnestness and efficiency with which they work, and they serve a three-year term.

According to the statistics collected by Secretary Bunn, there are 273 actual manufacturers in Chattanooga, who make 1137 different articles. The foundry business probably leads, as Chattanooga claims to melt more iron than any city in the South. There are 33 foundries here, and in addition to pipe, columns, kettles, bells and mill machinery of nearly every kind, gas ranges are made—the only place in the South, it is said. There is one furnace here making pig, and there is about every kind of activity except a steel plant.

There are three agricultural implement manufacturers, two of which keep traveling men in foreign countries all the time, and who make sales in South America, Russia, China, Japan and elsewhere.

There are four boiler-makers, one of which has just shipped two carloads to Manila, Philippine Islands.

Seven furniture manufacturers make office and household furniture, some of the highest grade.

Twelve lumber manufacturers turn out various kinds of native lumber, hard and otherwise, in merchantable shapes.

There are three large box factories and a trunk factory.

There are two cotton mills, making cloth; three hosiery mills, suspender factory and a manufacturer of neckties.

A dozen or more houses turn out proprietary medicines, three of them being of nation-wide scope.

There are two large flour and meal mills.

Four brick plants turn out various forms of common and face brick.

There is a porcelain enameling plant that makes the highest grade of bathtubs, plumbers' goods, etc., and sells the product as far north as New England.

One mill takes the wool from rags which are collected from all around the country and sells the product East as shoddy.

There are two plants where talc is imported and made into lava tips for acetylene-gas burners, automobile lights, etc., and sold all over the country.

These are but a few, of course, of the 1137 varieties of Chattanooga products, but this list gives some idea of the great range in the activities of the city. One of the distinctive features of the association's work is the collection of samples of Chattanooga products. Displayed in regular exposition style, four floors in a large double building are completely covered with this display. It makes a most impressive advertisement of the city's activities, and is inspected by nearly every visitor to look Chattanooga over. It has gained fame among other commercial organizations, many of whom have adopted the idea in whole or in part.

There is an industrial bureau, supported by the city in general, with which all the organizations co-operate. A member, a leading business man, has recently returned from a several weeks' trip, made at his own expense, in behalf of new industries. He reports the whole country thinking and talking about the South as never before. Results are coming from the work being done, and the bureau announces it will not be satisfied with less than 25 new factories during the coming year. By the way, anyone who lands a factory gets an honorarium of \$100.

## TEXAS' CUT-OVER TIMBER LANDS.

### Systematic Demonstration of Their Value in Agriculture.

[Special Correspondence Manufacturers Record.]

Houston, Tex., May 15.

Some months ago an article appeared in the MANUFACTURERS RECORD relating the very comprehensive plans the Houston Oil Co. were formulating for the utilization of its vast holdings of cut-over lands in East Texas. It was pointed out that this company owns outright more than 800,000 acres of land in East Texas, all of it originally covered with a dense growth of long-leaf pine, but which is being denuded at the rate of 20,000 acres per annum. Much more than 150,000 acres has been cut over, and this vast tract is now practically idle and useless. When cleared these lands are susceptible of intensive, varied and exceedingly profitable cultivation.

While these are still lacking complete and definite plans for the development of the entire present area of cut-over lands, or arrangements made to even take care of the annual yearly accretion of cut-over lands available for farming purposes, a forward movement of interest has been made out of which important results may come. Anything that appreciably stimulates the taking up of unoccupied land is decidedly advantageous, and nothing could bring a much greater change to the South than the utilization and occupancy of the enormous acreage of cut-over lands the whole South contains.

For long years we didn't need the lands from which the pine timber had been cut, and so there was no demand other than for speculative purposes, and not much of a demand at that, whatever the price. Since we have begun to ship corn and cattle from South America, eggs from China and butter and various other foodstuffs from the outside world, the immediate necessity for utilizing the waste lands of this country has manifested itself, and there are many corporations like the Houston Oil Co., owners of large tracts of cut-over lands, which are giving much time, investigation and experimentation to the problem of how best to get the farmer, stock-raiser, fruit-grower and permanent settlers to locate on the present desolate and forbidding barrens. Any conspicuous success in this direction would stimulate endeavors elsewhere, and it is particularly likely to prove of much benefit in East Texas, where household comforts are not conspicuously present in rural communities.

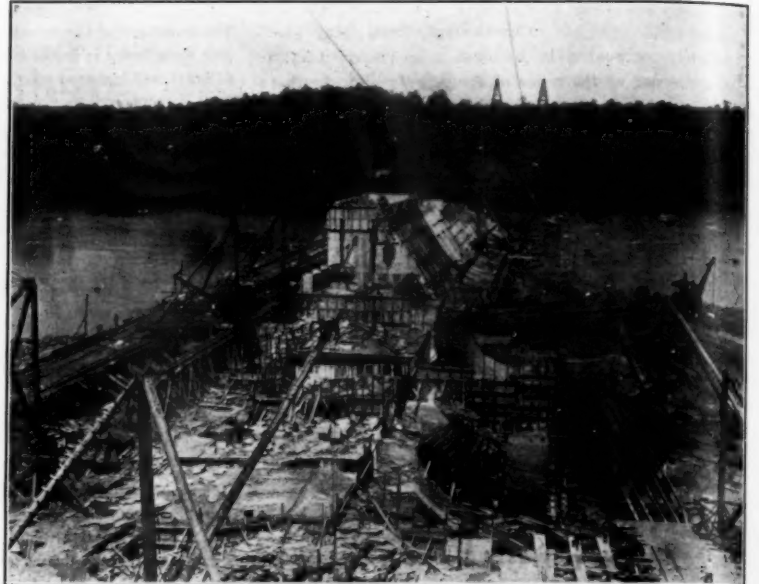
The Houston Oil Co. has been giving much investigation of the most practicable plan for impressing the outside farmer with the desirability of a location in East Texas cut-over lands, and as an initial proposition has decided on a complete demonstration farm. It is located a mile south of Kirbyville, in Jasper county, and in the farm there are 160 acres under fence under the direction of a practical man, who is thoroughly qualified for the work, it is proposed to cultivate corn and other staple crops, raise hogs, cattle, mules, etc., and demonstrate what the land will produce. E. M. Cadenhead, late with the Frisco system, and who came with the recommendation of State Commissioner of Agriculture Ed. R. Kone, has been selected for the position of director of the demonstration work. Books will be kept to show the expense, the return, and thus demonstrate what is the most profitable crop that may be raised. It is intended to make this farm a high school for all East Texas. An open invitation is extended to any and all to come and see what is being worked out here. The company wants to know itself what the facts are, so that they may be able to present facts to prospective settlers. It is not the intention to undertake a mere land-selling scheme. The design is to secure settlers who will prosper and thus become permanent residents of the section.

On the company demonstration farm a model farmhouse, barn and outbuildings are being put up, which themselves will be a part of the demonstration. The house is of six rooms, all screened, and with sleeping porches. It is of one story and attic. A bathroom and toilet are provided, water for the house and the barn being furnished by a gasoline engine, which will pump well water for these purposes into a tank in the yard. This house, which will be a typical, practical residence for this section, and altogether comfortable, will cost about \$2500. It will have an attractive appearance throughout, and the grounds will be embellished with walks, shrubbery, flowers and trees.

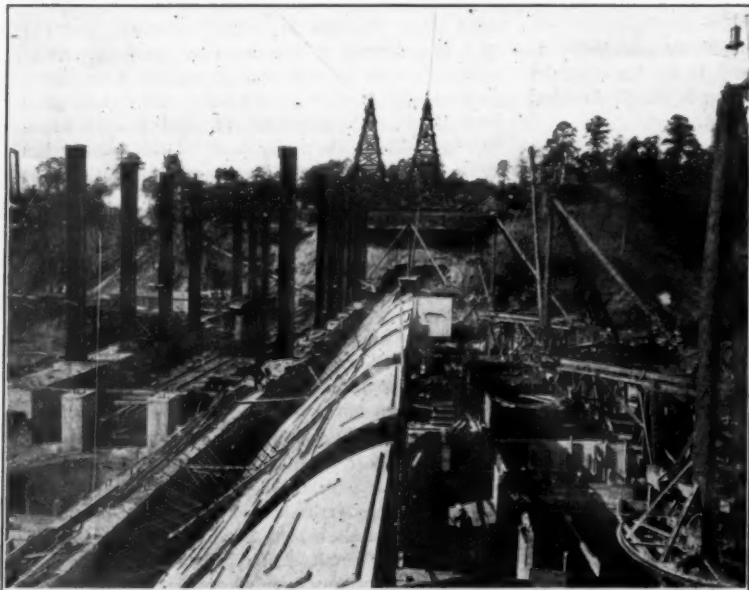
# Phases of Alabama Power Co.'s Coosa



COFFERDAM BUILT AT FIRST STAGE OF CONSTRUCTION ENCLOSING AREA OF POWER-HOUSE AND PART OF DAM.



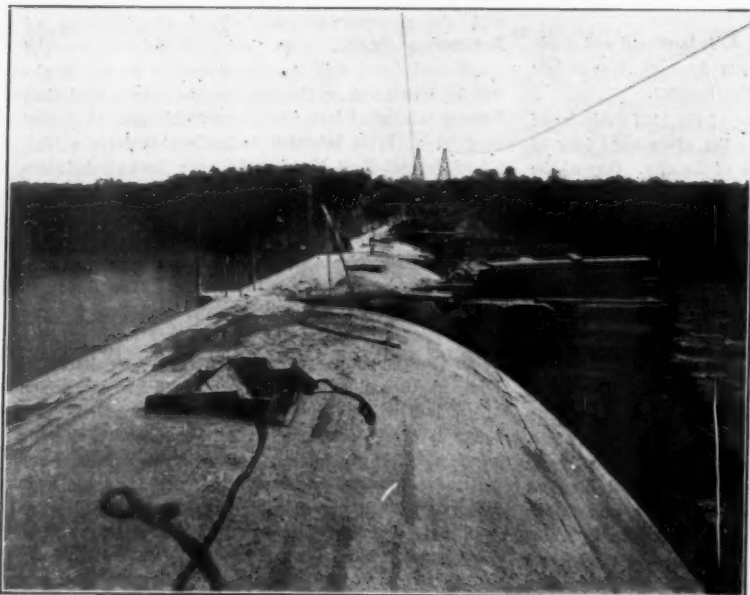
SHOWING FORMS FOR DRAFT TUBES AND METHOD OF HANDLING THE CONCRETE IN MAKING THE DAM.



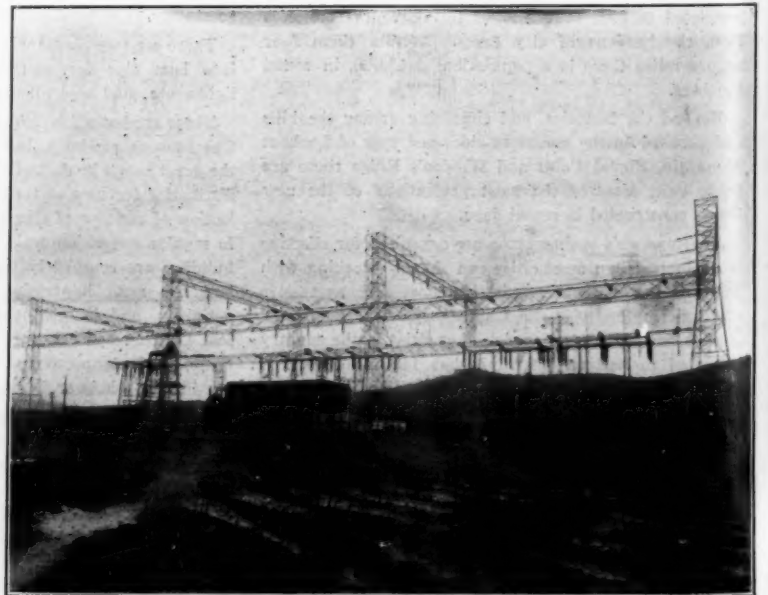
FOUNDATIONS OF POWER-HOUSE COMPLETED AND READY FOR MAIN STEEL COLUMNS OF SUPERSTRUCTURE.



SHOWING FLAP-DOORS FOR CLOSING THE DAM WHEN ITS CONSTRUCTION HAD REACHED MAXIMUM HEIGHT.



MANHOLE AT CREST OF DAM USED IN FILLING TEMPORARY TUNNELS IN DAM WITH CONCRETE.



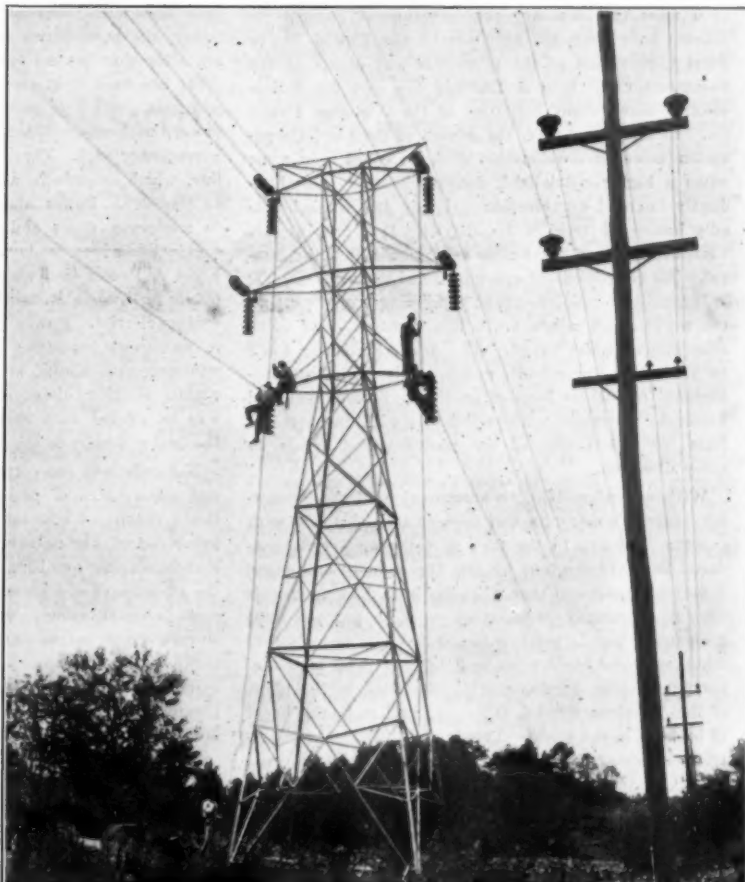
OUTDOOR SUBSTATION AT ANNISTON WITH TYPICAL STEEL TOWERS AND GIRDERS.



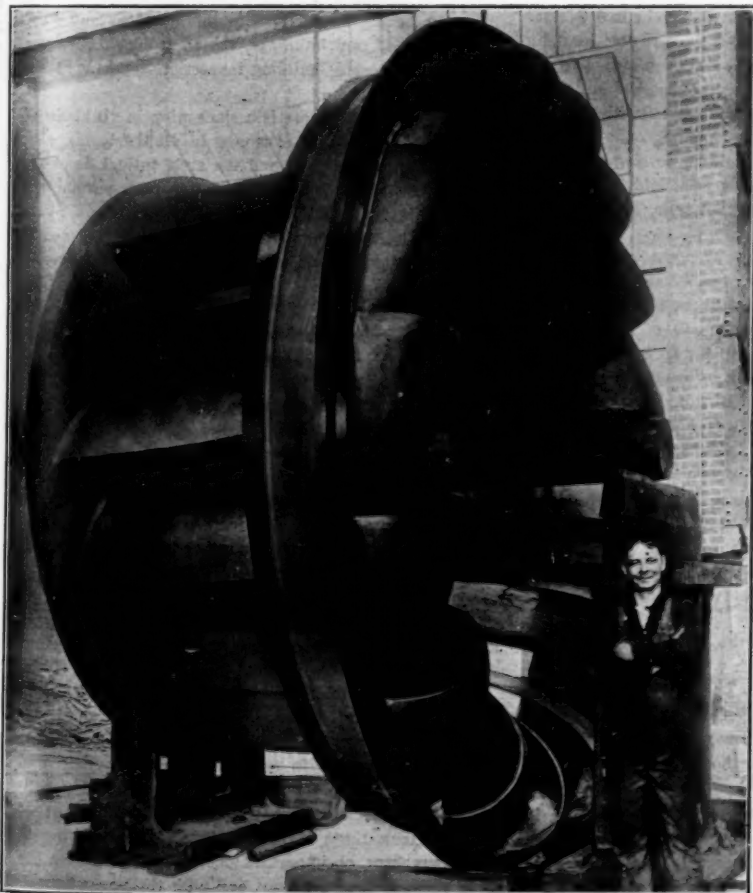
# River Hydro-Electric Development



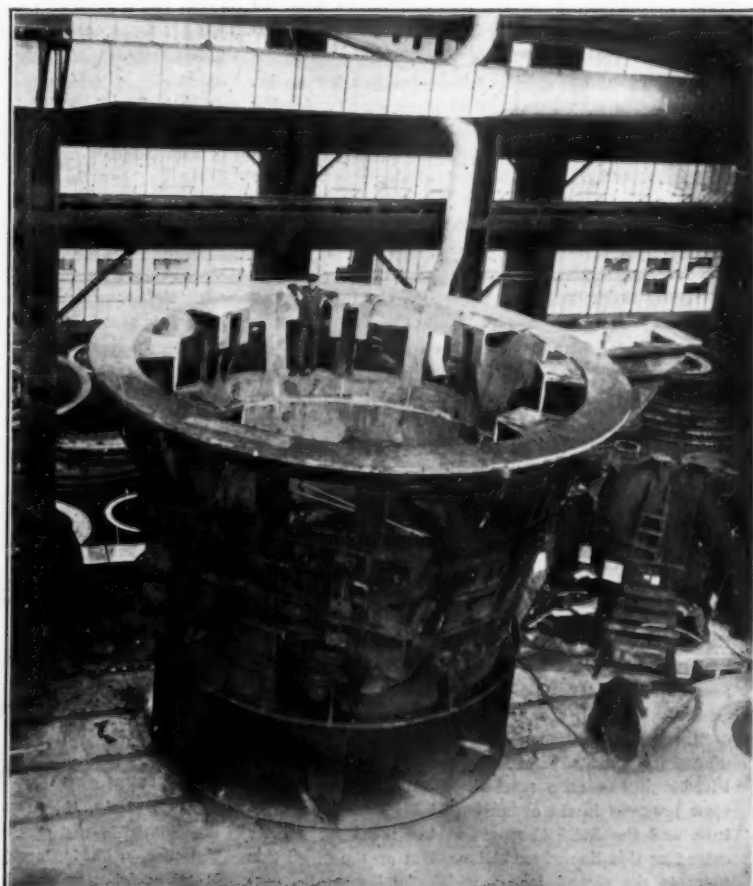
GANSDEN AUXILIARY STEAM PLANT CONTAINING TWO GENERATOR UNITS OF 5000-KILOWATT CAPACITY EACH.



STRINGING COPPER CONDUCTORS ON TRANSMISSION LINE TOWERS, FAMILIAR OBJECTS IN THE LANDSCAPE.



RUNNER OF TURBINE. THE MAN STANDING CLOSE TO THE RUNNER SHOWS ITS GREAT SIZE.



PIT LINER ERECTED IN THE SHOP. NOTE THE MAN STANDING AT TOP, INDICATING ITS DIMENSIONS.

## Factors in Birmingham's Growth

[Special Correspondence Manufacturers Record.]

Birmingham, Ala., May 15.

Two influential factors for the utilization at this point of a most extraordinary concentration of natural resources have been the purchase by the United States Steel Corporation of the properties and plants of the Tennessee Coal, Iron & Railway Co. and the hydro-electric development activities of the Alabama Power Co. In a physical way, the advent of the Steel Corporation meant a development such as could only come when a highly specialized, deeply scientific and abundantly financed organization seriously and wholeheartedly interested itself in the district. It is only at this time, nearly seven years after taking hold, that the company has completed the expenditure of some \$25,000,000 in practically rebuilding and equipping every part of the works—coal mines, ore mines, furnaces, steel mills, coke plants, water supply, etc.—and establishing itself on a basis to economically and properly utilize the phenomenal conditions here of proximity in ore, coal and limestone materials, with well-developed transportation lines for distribution of the manufactured article in every direction.

Without undertaking an enumeration of the Tennessee company's many lines of present activities, and with a mere reference to the fact that the steel rails produced here are the best by test the country can show, it may be mentioned that what has been done up to this time is practically preparatory work to put the steel company's plant in position to economically manufacture other products besides pig and billets. The most important present development in that line is the plant of the American Steel & Wire Co., said to be the finest of its kind in the world. This is at Fairfield, the industrial city created by the Jemison Real Estate & Insurance Co., in accordance with plans acceptable to the Tennessee company. This model city, built on lines agreeable with the best standard of civic development in this and other countries of the world, has a population of from 8000 to 10,000. Mainly these are the families of men who are employed in various capacities in the industries at Fairfield, some of them being connected with the furnaces and steel mills of the Tennessee company at Ensley, closely adjoining. The Fairfield plants employ 2000 hands. The Harbison-Walker Refractories Co., making furnace brick and linings, employs 300 hands. The Barrett Manufacturing Co., roofing, employs 200 hands at its plant. The newly-completed by-product coke-oven plant employs 500 hands, and the American Steel & Wire Co., 1000 hands. With full complement, this company will employ 1500 hands.

This company has only been in operation a few weeks. It manufactures various kinds of heavy wire for fencing and similar purposes. The enormous plant now in operation is but the first unit of four buildings of identical construction. The product of the plant will be sold throughout the South, and it will be introduced to the trade as soon as a sufficient stock has been accumulated to take care of any order that may be placed. The company's plant is running 24 hours a day, and as rapidly as hands can be "broke in" the full capacity of 1500 workmen will be put on.

In connection with this company's activities, 75 beautiful homes have been built in Fairfield by the company, and 70 lots in addition have been bought to build on. The Tennessee Land Co. has also built 42 attractive homes in Fairfield, in line with the interest taken by the Tennessee company in the well-being of those in the company's employ.

Iron and steel, of course, provide the foundation on which present-day development rests, and will continue for a long time to be the distinguishing basis of Birmingham's growth. Greater Birmingham has about 190,000 population. John W. Gates once said that Birmingham would be the first inland city in the United States to show 1,000,000 people. All that—the past, present and this prediction for the future—was based on iron and steel, the Birmingham of the future being counted on to show a greater diversification in the manufacture of finished shapes of iron and steel than even Pittsburgh has ever reached. There has been quite some progress in the expansion of diversified manufacture, and the Steel Corporation has ideas for greatly extending this line of operation. But on top of all this there is the second factor, which fundamentally concerns the permanency and greatness of the development here. This is cheap electricity, which is just being introduced by the hydro-electric developments of the Alabama

Power Co. With a plant finished having an ultimate capacity of 105,000 horse-power, and owning undeveloped sites with potentialities reaching 1,000,000 horse-power, the possibilities furnished by this new element are altogether beyond calculation. A great generating plant has been built on the Coosa, 38 miles from Birmingham, which is now equipped for 70,000 horse-power, with space for two additional units of 17,500 horse-power each. There is a 110,000-volt transmission line, which extends in a loop to a present termination at Gadsden. Power and light is being furnished now to numerous cities and towns along the line, and a contract has been made with the Birmingham Railway, Light & Power Co., which owns the franchise for the public utilities in Birmingham, Bessemer and the intervening district. Power and light are being furnished to numerous industries along the line, including ore mines, cement plants, steel plants, etc. All industries within striking distance, including even coal mines, will be offered such service as is expected to attract the field generally to the use of the company's power.

Not only will the cotton mills and the various large and small users of power in this entire district find this a cheap and convenient source of supply, but other industries of like nature are certain to be attracted in ever-increasing numbers. In cotton mills alone, with the advantages of a present large population of laborers, most favorable climate and location in the heart of the world's great cotton-producing section, the coming of cheap and practically limitless water-power must inevitably build up a center of cotton manufacturing greater than anything the cotton centers of New England have ever known.

Refined products of iron and steel, as well as the heavier shapes, must be manufactured here by companies and individuals not now on the ground, as well as by those who are already here, and many other large and small industrial plants, manufacturing an almost infinite variety of articles, must be attracted to the place. It is no longer regarded as a flight of fancy when Birmingham is referred to as the Pittsburgh of the South. A wider understanding of the vast possibilities the phenomenal aggregation of resources here affords has led the whole country to anticipate Birmingham's development on an immense scale. With the addition of superabundant hydro-electric power, there will come new and strange users of great units of power, enterprises not previously known even to the United States. All kinds of electro-chemical plants will be brought here by those profitably operating such plants abroad, opening up so wide a field for electro-chemical activities as to baffle all efforts to bound the possibilities of the development that is to occur.

The foundations for all of these developments, in every line described, have already been laid. It is now merely a question of working out details, and this is a matter actively in hand.

Some very notable buildings are just reaching the completion stage here. The aggregate value of the four most important ones amounts to about \$3,000,000. The Tutwiler Hotel is the most expensive of the four, as well as the most urgently needed, for no important city in the South has been so lacking in modern hotel facilities for the past decade as has Birmingham. The Tutwiler will be opened in June. It has been leased by the United Hotels Co., and will be managed by Geo. W. Traylor, Jr. Although a Southerner, a native of Spartanburg, S. C., Mr. Traylor has spent a great many years in other parts of the country, having been connected with leading hotels in New York, Chicago, San Francisco and elsewhere. There are about 350 rooms in the hotel, which is 12 stories in height. The construction throughout is of the highest standard, concrete, with brick facing, and the house has every convenience and improvement with which the most modern and best hotels are provided. The lobby is ornate and spacious, and the arrangement of dining-rooms, banquet hall, parlors, etc., is altogether metropolitan and imposing. With furnishings, the house will represent an investment of about \$1,500,000.

The Ridgely, the most elaborate apartment-house in the South, is the personal property of Major E. M. Tutwiler, who is largely interested in the Tutwiler Hotel, which was named for him by his associates, for it was through his initiative that the enterprise was started. The Ridgely represents an investment of over \$600,000. It occupies half a block of ground, is eight

stories high, and has 275 living-rooms, besides public dining-rooms and all the public conveniences hotels provide. The rooms are arranged on an elastic plan, so that suites of from two to seven rooms may be obtained. In the design and in construction and finish careful attention was paid to making the house particularly attractive and convenient, with the result that it stands as one of the best apartment-houses to be found anywhere. Hardly anything outside of New York surpasses it—certainly nothing in the apartment-house line in the South. The Ridgely was completed and opened to occupancy a few weeks ago.

Another new hotel, intended especially for use as bachelor apartments and for traveling men, and to be without kitchen or dining-room, is the Molton, nearing completion. It is on the block next to the Tutwiler. There are 151 guest and sample rooms. The building is of reinforced concrete construction, of neat architectural design, and it is being finished in the most handsome and attractive style. This improvement is also due to the personal enterprise of a Birmingham citizen, T. H. Molton, an extensive real estate operator here.

The fourth important new structure is that of the Jefferson County Savings Bank, which has just been completed. It is 25 stories high, said to be the tallest building in the South, and the third tallest in the United States, barring those of New York. A building in Cincinnati and one in Seattle are the only taller ones outside of New York. It is of steel frame, granite and terra-cotta exterior, and is of strikingly handsome appearance. The ground floor, occupied by the banking offices, is exceptionally beautiful and well arranged. There is a flood of light in every corner; the directors' and officers' rooms are massively and richly finished, and the vaults are of special design. The bank has grown from a small beginning to a great institution now, and a rousing house-warming was given the Ensleys, father and son, founder and present head, on the opening day.

The most unique Press Club in the country has the three upper floors, the dining-room occupying the entire upper floor. The twenty-fourth floor is exclusively for the ladies, a much appreciated feature, the lunch hour having become a social feature, if not function, from the first. The Press Club proper occupies the twenty-third floor. It has a membership, associate and active, of some 600 now.

As Birmingham is now quite well supplied with hotels and office buildings, there will probably be no great activity in this line of building for some time to come. The high-water mark in building reached in 1913 can hardly be counted on this year, at any rate. A total of 3641 new buildings, valued at \$6,429,737, was reported by the city building inspection department for 1913.

In a general way there is a slackening in all kinds of activities. While there is money in all the banks, city and country, hereabouts, and the crop outlook is excellent here and elsewhere, there is less than normal activity in business and industrial circles here. It is reported that the steel company is running to about 60 per cent. capacity, with new business in about the same proportion. In commenting on the situation, the First National Bank of this city has stated in the May issue of its regular monthly Financial and Commercial Review:

"It is still too early to pass judgment upon the Underwood tariff law, as it is difficult to analyze and correctly apply the principles of cause and effect. It is nevertheless true that grave doubts are beginning to arise as to the benefits of this act as far as the Birmingham district is concerned, and it is pointed out that the destruction of the sugar interests in Louisiana has resulted in a serious curtailment in the business of Birmingham foundries and machine shops and has adversely affected the demand for coal. The removal of all duty on pig-iron and certain steel products appears also to have narrowed the markets of the Birmingham mills and furnaces."

In the absence of large new construction work in the country generally, and with the railroads practically out of the market, it is impossible to foresee just when a change will occur in conditions generally that will bring about a conspicuous improvement here. The railroads of the South have suffered less curtailment of business than those of the North and East, owing to various reasons, an important one of which has been the good crops of the past year, and with the present excellent crop prospects, the outlook has a favorable aspect to that extent. Should the Interstate Commerce Commission grant the increase in rates asked for by the



railroads, it is felt that a very favorable impulse would be given to the industries and commerce generally, although it is commented that the time for a big and immediate effect in that line has passed. Had the relief been granted in the early part of the year, it is declared

that business would have felt the beneficial results on the instant, whereas the recovery to the position occupied at that time will now be slow and gradual, even should the requested increase in rates be authorized.

ALBERT PHENIS.

## Southern Coking Coal and the Decline of Connellsville

More than 20,000,000 tons of coke, out of a total production in the United States of 44,000,000 tons in 1912, came from the Connellsville region of Pennsylvania.

Of all the romances, more interesting than a novel, to be found in the history of the industrial developments of the world, there are none of greater interest than those which are in evidence everywhere in the Connellsville field of Pennsylvania. Here are to be found thrilling stories of marvelous wealth creation, stories of vast fortunes made and of vast fortunes lost my merest chance; stories of great industrial leaders, of combinations, and pools, of abounding prosperity one year and of deep poverty the next; stories of bitter fights between operators and men; stories of fights between giant leaders, like Frick and Carnegie, and others probably of equal ability if not of equal prominence in the world.

It is largely to the Connellsville coal field that the amazing iron and steel development of Pennsylvania is due. Coke has proved a powerful factor in drawing to Pittsburgh the iron ores of the Lake Superior region, and the superior quality of Connellsville coke has made for it a reputation throughout the world. It has been regarded as the standard coke of America, and other coals have been measured and judged by the nearness or the distance in their chemical qualities, as well as in physical structure, to the Connellsville standard. Such was the boast of Connellsville people for many years, and the boast was justified in former days. But the South has been developing high-grade coke-making, and is now preparing to develop on a very large scale a coke-making center which promises to rise in the world's estimation and take precedence over Connellsville for at least equality in grade and vast superiority in extent.

The end of the Connellsville region as a coke producer is in sight. Its years are numbered, and they are so short that in broad plans for industrial interests the period might almost be said to be practically here when Connellsville will no longer be the dominant power in the iron and steel world. This in itself would help to bring about a shifting of the iron and steel industry and lessen the dominating power which Pittsburgh has for so many years maintained.

The *Weekly Courier* of Connellsville, for many years the exponent of that section, in a special issue of exceptional interest devoted to "The Connellsville Coke Regions, Their Past, Present and Future," covers, as it has probably never been covered before, the whole story, historically and statistically, of that field. In 1880 the total production of Connellsville coke was only 2,200,000 tons; as late as 1890 it was only 6,464,000 tons. Last year it was over 20,000,000 tons. The 7211 ovens of 1880 have been increased to 39,067 ovens. The output of Connellsville coke is now equal to 600,000 carloads, or to 12,000 trains of 50 cars each, annually. Forty trainloads of coke per day must be hauled out of that region for 300 days of the year.

The 14,000,000 bales of cotton, representing an average crop in the South, will furnish about 3,500,000 tons of freight, and the seed about twice as much, or say, 10,000,000 tons as the entire weight of the cotton crop, seed and lint included. This is only one-half of the coke tonnage produced in one limited area in one corner of Pennsylvania. That area has been so clearly defined by the diamond drill and by thorough exploitation that it is now possible to measure with almost mechanical accuracy the extent of coal yet available. According to the increase of mining, it is counted that the life of the Connellsville region will be between 14 and 16 years, and of the Lower Connellsville field of between 20 and 31 years.

In the special issue of the *Weekly Courier* Mr. Boileau reports that in 1888 the *Courier* estimated that the Connellsville region would be exhausted in 1928, and that after nearly 30 years it is conceded by experts that this estimate is as nearly accurate as it is now possible to make it. This region has been so thoroughly covered by mines that the physical properties and charac-

teristics of the coal bed are definitely known, and every acre of coal can be accounted for. In the lower region, known as the Lower Connellsville district, several plants have but short life ahead of them, while a few have acreage large enough to furnish them a supply for many years. In the lower field 50 of the coking plants will have exhausted their supply within 20 years, running at present production, and without counting on any increase. Approximately 80 plants in both districts will have exhausted their present coal acreage in seven years without allowing for any increase in production, whereas the annual increase in output has averaged more than 7 per cent. per annum for 20 years.

Coal land in that district had advanced by 1906 to over \$1000 per acre. In recent years as much as \$2500 per acre has been paid. The *Courier* tells the story of an operator who some years ago had an option on a large acreage at \$25 to \$40 per acre. He failed to avail himself of it, but the land is now worth \$2500 to \$3000 per acre.

Giving some interesting accounts of the early history of the Connellsville region, the *Courier*, speaking of the H. C. Frick Company, says:

"Andrew Carnegie and his partners had in the meantime become partners in the Frick Company, backing the young and enterprising head of the concern with liberal capital. They owned a controlling interest. It was even then becoming a Carnegie habit to own the controlling interest."

Even in those early days these strong, hard-headed men, Carnegie and Frick, soon clashed, resulting at the time of one of these clashes in the resignation of Frick as the head of the coke company.

While the history of the Connellsville region is of interest to every iron and steel man in the country, to every foundryman and everyone else who comes in touch with coke-using, it is especially interesting to the South, since it shows something of what has been done in the development of a little district in Pennsylvania toward centering the iron and steel industry of the world in Pittsburgh. And now the approaching end of the Connellsville region must of necessity turn the thoughts of the world to the fact that three-fourths of the coking coal of the United States is in the South. Here is to be the field of the great coke-making activities of the country.

There are many great coking coal fields in the South. West Virginia, and Virginia, and Tennessee, and Alabama are great coke producers. But experts have long claimed that the most important single coking coal field, considering quality of the coke and its extent, in the world is in Eastern Kentucky. Giant forces in the metallurgical world, men like E. J. Berwind, the Watsons, Wheelwright, the dominant interests in the Big Sandy Company of Boston, and other Boston financial powers, great railroads like the Baltimore & Ohio, the Louisville & Nashville, the Chesapeake & Ohio, the Clinchfield, are all looking to the Elkhorn region of Kentucky as the section which will take the place of Connellsville—a section whose coke production will ultimately run beyond the 20,000,000 tons which Connellsville is now producing.

When it is remembered that these 20,000,000 tons are in weight twice as great as the total cotton crop of the South, seed and lint included, even though the haul, of course, is not so long, it can be readily understood why the great railroad forces of the land are trying to secure strategic positions in the Elkhorn field, and why great coal operators like the Consolidation Coal Co. and the Boston people and Philadelphia interests are concentrating their forces for vast developments in that region. It is only another proof of the fact that the time is rapidly coming when the South will add victory to victory in the industrial world, and dominate in coke-making as it does in phosphate mining, in sulphur production and in cotton growing. Its victories have been many, but still greater victories are before it.

## FROM SHANTIES TO A BUSY TOWN.

By A. SYLVESTER EDMONDS.

In 1907 the town of Canton, N. C., had a population of 300. Its business section consisted of a shack store or so, while a few shanties scattered at random among the trees along twisting roads constituted the remainder of the town. Today—seven years later—Canton is a thriving, bustling community of 5000 people. The spirit of commerce is rife. In the smokestacks, substantial buildings, good roads and paved walks are seen the marks of progress. Evidences of prosperity appear on every side. A crowd of well-dressed, happy high-school boys and girls, hurrying to the station to send a baseball team joyously on its trip of conquest, emphasized the good type of citizens apparent in Canton. The school building, which is always an excellent measure of State advancement of a community, is the most prominent and the handsomest structure of the town.

Probably the most potent factor in the strides Canton has made is the Champion Fiber Co. The plant of this concern, one of the largest of its kind, if not the largest, in the world, represents in its construction an expenditure of \$3,000,000, and in operation an investment of about \$4,500,000, according to the statement recently made to the *MANUFACTURERS RECORD* by an official of company. The bi-weekly payroll of the plant averages about \$2500, which, in the manufacture of paper pulp, where labor-saving devices are at a high state of development, is relatively much larger than in almost any other line of manufacturing of raw material.

Largely through the business of the Champion Fiber Co., Canton has become one of the leading centers in North Carolina as a freight-handling point. The output of wood pulp is 200 tons a day. This pulp is used in the manufacture of paper and kindred articles. The greater part of the Canton mill's output is used by the parent plant in Ohio. The only finished product put out by the Champion Fiber Co.'s mill is a heavy, rough paper used for making cartons and for heavy packing. This latter branch of the business is comparatively unimportant.

The daily consumption of wood in the process of manufacture is 300 to 350 cords. There was a reserve of 55,000 cords in the yards the latter part of April. At that time the stock was being added to. To run the enormous plant 7000 horse-power is developed in the boiler-room, and, besides the 4000 kilowatts of electricity generated on the grounds, a heavy current from a North Carolina power-house is employed.

But this monster plant has done more than multiply the fortunes of the captains of industry at its helm or add to the incomes of capitalist shareholders. It has gone into the heart of the mountains and given the ignorant man there employment; it has taught him how to work with machinery; paid him wages that furnish an incentive to work, and, in the chance for advancement it offers, given him something to look forward to and live for.

## American Water-Works Officers.

At the thirty-fourth annual convention of the American Water-Works Association, last week, the following new officials were elected: President, George G. Earl, general superintendent sewerage and water board, New Orleans, La.; vice-president, Nicholas S. Hill, Jr., consulting engineer, New York; Allen Hazen, civil engineer, New York, and A. W. Cuddeback, superintendent Passaic Water Co., Paterson, N. J., were the new trustees elected; J. M. Diven, 47 State street, Troy, N. Y., was re-elected secretary and editor, and James M. Caird, chemist and bacteriologist, Troy, N. Y., treasurer. In connection with the convention there was quite an extensive exhibit of machinery, equipment and miscellaneous water-works supplies.

## Birmingham Structural Steel Plant.

About \$100,000 will be invested by the Ingalls Iron Works of Birmingham, Ala., to build a plant for manufacturing structural steel. Plans provide for the erection of three buildings of steel and reinforced concrete construction—300x100-foot factory one story high, 70x30-foot office two stories high and warehouse of dimensions exceeding 300x100 feet. This company has organized with officers as follows: President, R. I. Ingalls; vice-president, M. J. Gregg; secretary and treasurer, M. F. Thornton.

### Another Elkhorn Coal Company.

It is contemplated to organize another coal company for the Elkhorn region of Kentucky, the announcement appearing in a notification to the stockholders of the Elkhorn Fuel Co., Clarence W. Watson, president, New York. This announcement states that the stockholders of the Elkhorn Fuel Co. are privileged to subscribe to the unsold preferred and common shares of the Elkhorn Mining Corporation, lessee of 20,000 acres of coal land from the Elkhorn Fuel Co. President Watson's circular-letter to the stockholders is, in part, as follows:

"The development of the company's mining operations, upon which over \$1,700,000 has already been spent, exceeds in rapidity any similar developments. There are now 13 mines opened, 1100 houses under construction, the majority of which have been completed and occupied, and 11 tipples built and under construction. Of the \$3,000,000 par value of preferred and \$3,750,000 par value of common stock of the Elkhorn Mining Corporation, \$851,200 of preferred and \$1,064,000 of common stock have already been subscribed for and the sale of the remainder has been underwritten. There is now under contemplation the formation of a new company to acquire the properties of the Elkhorn Mining Corporation and certain other properties. In view of this possibility it has been determined to offer to the stockholders of the Elkhorn Fuel Co. a further opportunity to subscribe, subject to allotment, for the stocks of the Elkhorn Mining Corporation so underwritten at \$100 for one share of preferred and one and one-quarter shares of common stock, payable 10 per cent. 10 days after notice of allotment and 10 per cent. monthly thereafter."

### Republic Iron Furnace Improvements.

Within 30 days the Republic Iron & Steel Co., Youngstown, O., expects to blow in its No. 1 furnace at Thomas, Ala., near Birmingham, approximately \$150,000 being the cost of the new work. The old furnace has been dismantled and a larger furnace has been erected on the site with 13-foot diameter crucible, 20-foot bosh, 13-foot 3-inch stock line, 85 feet high, connected to new dust catcher 26 feet 3 inches in diameter and a No. 500 Mullen patent gas washer. Dimensions and lines of this new furnace, daily capacity to be about 300 tons of high-grade foundry iron, are similar to the company's No. 3 furnace at Thomas, which has been in blast for more than three years.

### Wants Agricultural Implements.

Leon H. Bassan, Sofia, Bulgaria, writes to the MANUFACTURERS RECORD as follows:

"I am interested in agricultural machinery and equipment of all kinds, and I would be very much obliged to you for giving me the addresses of suitable firms who would like to do business with Bulgaria. Firms manufacturing other articles besides agricultural implements would also be acceptable. I believe I enjoy a good reputation and have a good clientele in this district, and I could procure good business for suitable houses."

### Austin to San Antonio Highway.

A 71-mile highway, extending from Austin to San Antonio, Tex., through Hays, Comal and Guadalupe counties, will be constructed at a cost of about \$240,000, and the United States Government has appropriated \$80,000 of the amount required. J. R. Shidler, highway engineer inspector, Austin, has made a detailed report.

### To Manufacture Mine Cars.

A plant for manufacturing mine cars is planned to be built at Huntington, W. Va., by the Bag Mine Car Co., care of Blair P. Wilson Real Estate Co., First National Bank Building, Huntington. The company has purchased a 16½-acre site, and expects to expend \$250,000 on the plant.

### Vacuum Cleaners.

Handelsvereniging "Buderus," Hofguyckstraat 36-38, The Hague, Holland, is desirous of introducing vacuum cleaners, and requests price-lists, discount sheets, terms, etc., on that class of equipment.

## GOOD ROADS

### WEEK'S HIGHWAY RECORD.

#### Progress in Southern Road and Street Improvement.

[Further details of highway undertakings and bond issues mentioned below are given under the headings Construction Department and New Securities, published elsewhere in this issue.]

#### Bonds Voted.

Batesville, Tex.—Zavalla county voted \$30,000 bonds for road construction.

Bonham, Tex.—Fannin county voted \$250,000 bonds to construct roads.

Denton, Tex.—Mustang Precinct of Denton county voted \$22,500 bonds to construct roads.

Lewisburg, Tenn.—City voted \$20,000 bonds to improve streets.

Miami, Fla.—City voted \$60,000 bonds for street and sidewalk improvements.

Oakville, Tex.—Live Oak county issued \$25,000 bonds to improve roads.

Wartburg, Tenn.—Morgan county voted \$275,000 bonds to construct roads.

West Union, W. Va.—City issued \$62,000 grading and paving bonds, etc.

#### Bonds to Be Voted.

Brandon, Miss.—Rankin county votes May 30 on \$50,000 bonds to construct roads.

Cotulla, Tex.—La Salle county will vote on \$45,000 bonds for road and bridge construction.

Denison, Tex.—City votes June 4 on \$20,000 bonds to improve streets.

Denton, Tex.—Denton county votes July 18 on \$300,000 bonds for road construction.

Floresville, Tex.—Road District No. 1 of Wilson county votes June 23 on \$60,000 bonds to construct roads.

Kaufman, Tex.—Justice Precinct No. 1 of Kaufman county votes June 20 on \$200,000 bonds to construct roads.

North Richmond, P. O. Richmond, Va.—Town votes May 29 on \$85,000 bonds for street improvements, etc.

Vanceburg, Ky.—Lewis county will vote on \$150,000 bonds to construct roads.

Wichita Falls, Tex.—Precinct No. 4 of Wichita county votes July 7 on \$125,000 road bonds.

#### Contracts Awarded.

Albany, Ga.—City awarded contract for 10,000 square yards of sidewalk.

Baltimore, Md.—City awarded \$166,571.30 paving contract.

Baltimore, Md.—State awarded \$78,000 contracts to construct roads.

Bennettsville, S. C.—City awarded contract to lay 10,000 square yards six-foot concrete sidewalks.

Dallas, Tex.—Dallas county awarded \$60,749.96 paving contract.

Florence, Ala.—City awarded contract to construct 2600 feet water-bound macadam roadway, with concrete curb and gutter, etc.

Houston, Tex.—Harris county awarded \$32,132.25 contracts for road construction.

Houston, Tex.—Harris county awarded \$9807.50 contracts for road improvements.

Marietta, Okla.—City awarded contract for 20,000 square yards vitrolithic concrete paving at \$2.13 per square yard.

Norfolk, Va.—City awarded contract for 1100 square yards bituminous concrete paving.

#### Contracts to Be Awarded.

Baltimore, Md.—State receives bids until May 26 to construct six sections of State highway, about 26.28 miles.

Baltimore, Md.—City receives bids until May 27 for 8750 square yards of sheet asphalt, 820 square yards vitrified block and 3880 square yards scoria block.

Birmingham, Ala.—City received bids until May 19 for 14,400 square yards paving on roadway, 1000 yards

concrete gutter, 400 yards cement sidewalks, 200 yards brick alley paving, 3100 linear feet curb, etc.

Corsicana, Tex.—City will pave 1½ miles of street. Forest, Miss.—Scott county receives bids until June 1 to improve about six miles of roads.

Holland, Va.—Town will construct two miles of macadam road.

Harlingen, Tex.—City receives bids until June 15 to complete sidewalks and curbs in Improvement District No. 1; 182,000 square feet sidewalks, 21,350 linear feet curbing and 9500 linear feet curb and gutter.

Houston, Miss.—Beat 1, Chickasaw county, receives bids until June 8 for grading and graveling 18¾ miles of road.

Mart, Tex.—City receives bids until June 1 for 17,400 square yards pavement and 4500 feet combined curb and gutter.

McKinney, Tex.—City receives bids until May 26 for work in Improvement District No. 1; 25,438 square yards paving, 12,166 cubic yards excavation, 14,846 linear feet curb, etc.

Morganton, N. C.—City receives bids until June 1 to construct 3600 square yards concrete paving and 2400 linear feet concrete curbing; also 3600 square yards paving, concrete foundation, bituminous top.

Mt. Airy, N. C.—City will construct two miles of tarvia street.

Tampa, Fla.—Hillsborough county receives bids until June 4 to pave one mile of road with concrete and one mile with vitrified brick.

Waco, Tex.—McLennan county receives bids until June 15 for five separate road contracts, including 185 miles of various types of construction.

### By Motor from Miami to Baltimore.

Between Richmond, one of the rich and growing cities of the South, and Charlottesville, a great educational center, the leading town in a county which is becoming noted throughout the land for the splendid homes that are being built in it by people from other sections, there is a road of indescribable badness. The Automobile Association of Richmond has marked it as though it were a feasible proposition. Perchance it may be in mid-summer, but during the spring, at least, it is a road that disgraces civilization.

Virginia is doing splendid work in road building. It may have some roads worse than 40 or 50 miles of the line between Richmond and Charlottesville, but if it has, may a kind Providence deal gently with the people who are dependent upon it for transportation, whether they be living there or whether they are strangers passing through the country! In motor trips covering many thousands of miles, through regions sparsely populated, in sections where abandoned corduroy roads through cypress swamps have been traversed, the writer has never found a road of 40 or 50 miles as continuously bad, and bad to such a depth as this Richmond-Charlottesville line during a wet season. Mud holes in it seem to be without bottom, and the clay, of which a large part of it is composed, is almost as bottomless as the mud holes.

Merely with a view to trying to stir up an interest in showing what bad roads do, the accompanying illustration is presented of a party of half a dozen men trying to prize an automobile out of a mud hole where the blue clay was so tenacious that three mules could make no impression whatever toward moving the car. They might, indeed, have just as well been hitched to the Washington Monument. That mud hole was not worse than hundreds of mud holes along the line, but skill in guiding the car kept it out of most of the other apparently bottomless holes. The old farmer living close by, who supplied the three mules and who cut down a few trees in order to try to prize the car out of the mud, in a semi-jocular way said that the county was rich enough to have good roads, and when asked why they did not have them said the politicians and the officeholders got all the money. We hope he was wrong. It has been suggested sometimes that occasionally a piece of road was kept bad in order to give the farmers nearby an opportunity to pull out stranded automobiles and make a profit thereby; but that is not the case here, for this farmer, with three mules and four or five of his hands, actively worked at the job for about two hours and then refused to accept more than a dollar for pay.

Along this stretch of road, which begins a few miles out of Richmond and runs to within a few miles of Charlottesville, a country of great natural advantages, there is less evidence of progress, less evidence of new homes



## AN EXPERIENCE WITH THE BLUE CLAY OF VIRGINIA.



MULES TO THE RESCUE.



SIX-MAN POWER NEEDED.

and better homes, less evidence of good farming development than was seen anywhere else on a motor trip of equal length that covered 4000 miles. And yet the country naturally has many advantages not possessed by much of the country covered in that trip.

"Bad roads" tells the story.

Between Richmond and Washington there is under construction for the greater part of the distance a new road which is intended as a link in the through system from the North to Miami, Fla. South of Richmond there is a fair road to Petersburg, although it badly needs repairs. From Petersburg to Durham, N. C., the new road recently completed is exceptionally good. There are some very bad stretches of road between Durham and Fayetteville. From Fayetteville to Pinchurst the road is passable, and from Pinchurst on through Camden, Columbia, Aiken, Augusta and down to Savannah the roads may be counted as fairly good, with some long stretches that are exceptionally fine. From Savannah to Jacksonville the road is not in good shape except for short distances. From Jacksonville to Miami, nearly 370 miles, probably 200 miles would be called very good and 100 fair to medium, and about 70 bad to very bad. Nearly all of the bad stretches, however, if not all, are under contract. Properly pushed, it should be possible to cover the bad stretches during the summer and early fall, so as to give a fairly good highway down the entire East Coast of Florida while awaiting the completion of the brick roads and rock roads under contract. There is great activity in road building in the central part of the State and on to the West Coast, so that the time is not far distant when Florida will be covered with a network of thoroughly well-made roads, and when the East Coast and the West Coast will be in direct connection with Jacksonville by modern highways worthy to be called such.

Wherever long stretches of good roads are found in the South, automobiles are everywhere in evidence for business purposes. Traveling salesmen, lawyers, doctors, merchants, farmers and others are using the little inexpensive cars that are now available for business purposes to a remarkable extent. They are adding to the activities and progress of every community where good roads are found.

In Florida during the past winter there were many cars, apparently in the aggregate some thousands, from Northern and Western States, and even from California, and some from Canada as far north as Winnipeg. The good roads were alive with motor tourists, and the motorist is becoming one of the leading factors in the winter life of Florida. Only a beginning, however, has been made. When the network of good roads planned in all parts of the State shall have been completed, there will be a dozen or more cars from other sections every winter for every one that now visits the State. Florida should become as great a motor center during the winter months as New England is during the summer.

Good roads developments along the Gulf coast and on out to Texas should produce similar results, for the whole Gulf coast of the central South and of Texas appeals mightily to people from the North and West who want to escape the terrors of the winters which keep them housed for three or four months every year.

The change in roads in the last few years shows remarkable progress. Great credit is due for what has been accomplished, even though only a beginning has been made.

**Macon to Columbus.**

Chamber of Commerce,

Macon, Ga., May 13.

*Editor Manufacturers Record:*

The Macon to Columbus highway starts at Bibb county line, turning to the left at Lizella, Ga., and taking a road through Crawford county by an old stage line passing through Knoxville and Roberta, both of which are in Crawford county. Roberta is a flourishing town one mile from the county-seat on the Southern Railway between Fort Valley and Atlanta.

A few miles beyond Roberta the highway will cross Flint River on a new steel bridge to be built by a company headed by Mr. C. H. Neisler, Reynolds, the contract of the bridge not having been awarded as yet. After crossing the Flint River the road will go to Taylor county by way of Reynolds to Butler, which is the county-seat.

Talbott county is just beyond Butler, and here the road will go through a promising young town, Junction City, where it crosses the Central of Georgia and Atlanta, Birmingham & Atlantic railroads, and goes on to Talbotton, which is the county-seat of Talbott county. From Talbotton it goes into Harris county, three miles beyond Talbotton. Here it strikes the highway running from Columbus to Warm Springs, and at this point is Waverly Hall, 22 miles from Columbus, and from Waverly Hall into Columbus is a model highway. The road, when completed, will be 105 miles long. Contracts are now at work on all sections of it, and the contract for the bridge will be let very shortly.

This road goes through some of the finest farming sections in the State of Georgia. Many peach orchards are in Taylor and Crawford counties on the side of the road. This road will be a great help to the merchants of Macon and Columbus, the trade along this road being equally divided. E. H. HYMAN, General Secretary.

**Government in Road Work.**

Chamber of Commerce,

Austin, Tex., May 12.

The first Government highway in Texas will extend from Austin to San Antonio, taking on the towns of Buda, Kyle, San Marcos, New Braunfels and San Antonio. It is 75 miles long, and the cost when completed will be \$250,000. Of this sum the United States Government pays \$80,000 and the counties the balance. It is expected that this road will be as good as almost any paved street in a city, and will be the means of cultivating fellowship and business in this entire territory.

In addition to this road, Travis county has just paid a 15-cent tax levy for the purpose of improving the Jack land roads of Travis county.

WILL L. VINING, Secretary.

**Studying County Road Systems.**

Detailed studies of local road-building systems in 100 counties are now being carried on by the National Department of Agriculture in co-operation with the State highway departments and local road authorities.

The purpose of this study is to discover the points of excellence and defects in existing local methods of building and maintaining roads which will aid the State authorities to put local road management on a systematized basis. The co-operating State authorities have been asked to designate counties that present typical and exceptional features as to topography, character of road materials, methods of construction and maintenance, administrative organization, methods of road financing and traffic conditions. From these lists 100 counties will be selected, and in these counties the Division of Road Economics will make intensive studies.

This investigation is prompted by the fact that there is at present very little knowledge as to the most effective and economical methods by which a county can develop its roads. At present the methods of financing local road improvements vary from calling on farmers for a certain number of days' labor in lieu of a road tax, or the use of county prisoners in road construction, to bond issues or maintenance of roads from dram-shop license funds.

**Wants More Good Roads.**

A leading business man on the West Coast of Florida, writing to the MANUFACTURERS RECORD, says:

"The fact remains, however, that the greatest necessity of the Pinellas Peninsula is more good roads, and the people are rapidly becoming convinced of that fact and a new bond issue for more good roads is now being discussed."

Sometimes as one travels over some of the bad roads of the South, and then sees the amazing betterment of the country where good roads are established, he is inclined to believe that the greatest need of the whole South, as well as of the Pinellas Peninsula of Florida, is good roads. They are the forerunner of moral, educational and material advancement; indeed, they are not only the forerunner of these things, they are the creator of them. Wherever good roads are built the country takes on a different atmosphere. The physical conditions change; better homes, more improvements to lessen the burden of life on the farm, more paint, better school and church buildings, and better attendance at both, all follow closely in the wake of the good road.

**For 185 Miles of Roads.**

McLennan County Commissioners, Waco, Tex., will open proposals on June 15 for the construction of 185 miles of road in Justice Precincts 1 and 3. Five road contracts and ten bridge and culvert contracts will be awarded. Brick, concrete, bituminous macadam, water-bound macadam, gravel and sand-clay road construction will be considered, the work to be in charge of R. J. Windrow, county engineer. This extensive road improvement is in connection with McLennan county's recently-voted issue of road bonds to the amount of \$1,075,000.

**A \$166,000 Asphalt Paving Contract.**

Another big paving contract has been awarded by the municipal officials of Baltimore. It calls for laying sheet asphalt on 27 streets and amounts to \$166,571.20, the Baltimore Asphalt Block & Tile Co. being the contractor.

## RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

### HUGE RAILROAD MORTGAGE.

#### Baltimore & Ohio Preparing a Plan to Issue General Bonds for Its System.

President Daniel Willard of the Baltimore & Ohio Railroad Co. announces that it is preparing a broad plan for its financial requirements, one which will probably be in the form of a general mortgage, including under one deed all properties of the system, together with its terminals in New York and Chicago. It will provide for the refunding of existing funded debt and also for improvements or extensions in the future.

This statement was made in connection with his announcement the other day that the company had sold to Kuhn, Loeb & Co. and Speyer & Co. of New York \$35,000,000 of 4½ per cent. one-year notes, the proceeds of which are to pay \$20,000,000 of notes which mature July 1, the balance of \$15,000,000 being to cover the cost of additions and betterments during the year and the building of the new two-track line, known as the Magnolia cut-off, between Orleans Road and Little Cacapon. It is particularly interesting to observe that this note issue was immediately twice oversubscribed, thus emphasizing the credit of the railroad company in the financial markets. Some of the money from this sale will be devoted to providing additional facilities which, although not extensive, are urgently demanded.

President Willard further says that with the idea of adopting a general financial plan in view, the company has for some time proceeded with the unification of its properties. Recently it formally took over the ownership of all its roads in West Virginia, while in Pennsylvania it has combined under one company, called the "Baltimore & Ohio Railroad Co. in Pennsylvania," its principal properties in that State. These arrangements are expected to be completed in the near future, consequently the company considered it advisable to make its new note issue for the term of only one year.

In consequence of this announcement, speculation is aroused concerning the probable amount of the proposed new mortgage. As the Baltimore & Ohio has approximately \$425,000,000 of bonds and notes which will mature from time to time, it is surmised that the new loan plan will provide for between \$500,000,000 and \$600,000,000 of bonds, and that, as in the case of the Pennsylvania and the Atlantic Coast Line financing, the mortgage will embody a provision that bonds may be issued in series as may be desirable and at varying rates of interest as may be found most suitable, according to conditions prevailing in the financial markets at the time of each issue. It is also suggested that the amount of bonds under the new mortgage may not be limited to any fixed amount as provided in the New York Central's general mortgage.

It is expected that some further announcement will be made before long by the company regarding this new financial plan.

### Chesapeake & Ohio's Extension.

Now that the Chesapeake & Ohio Railway has agreed to sell to the Lake Shore & Michigan Southern Railway its holdings of Kanawha & Michigan Railway stock, it seems probable that there will be an early beginning of construction on the projected extension from South Portsmouth, Ky., to Columbus, O., to afford the Chesapeake & Ohio a direct connection with the Hocking Valley Railroad, nevertheless there will be a traffic arrangement with the Kanawha & Michigan for use as may be desired.

The estimated cost of building the extension of 93 miles is approximately \$7,000,000, and as the sale of the stock will yield more than \$4,000,000 (there being 40,292 shares to be sold at par), there will be a comparatively small part of the cost—apparently not more than 50 per cent.—to be provided for by the sale of bonds. It is understood that the company, before the sale of stock was arranged, had an offer from an English source to take the bonds for the entire probable amount, viz., \$7,000,000. Pending the actual accomplishment of the stock transaction the company is attending to preliminaries for the construction and will receive bids to fur-

nish the steel work for the necessary bridge over the Ohio River at South Portsmouth until June 2. An especially interesting announcement in connection with the sale is that the Chesapeake & Ohio bought the stock four years ago for \$72 per share, while it now sells it for \$100, thus making a profit of more than \$1,125,000.

About two years will be required to build the line from South Portsmouth to Columbus, and its completion will provide the Chesapeake & Ohio with a most valuable route for the transportation of coal to the Great Lakes. This will probably cause a much greater development of coal in the Elkhorn and the Clinchfield regions, and will also strengthen the importance of the connection which will soon be an accomplished fact between the Clinchfield Railway and the Chesapeake & Ohio via Elkhorn City. As hitherto stated, M. J. Caples, vice-president, will have personal charge of the new construction.

### New Equipment, Etc.

Missouri, Kansas & Texas Railway has ordered 200 ballast cars from the American Car & Foundry Co., St. Louis, also 5 Mikado type locomotives from the American Locomotive Co., New York. The road has just sold equipment trust certificates amounting to \$765,000 covering this and other purchases.

Maryland & Pennsylvania Railroad has ordered 2 consolidation type locomotives from the Baldwin Works, Philadelphia.

St. Louis Water-works Railway has ordered 2 steel cars 50 feet long over all from the St. Louis Car Co.

Tampa & Gulf Coast Railway is receiving 2100 tons of rails from the Maryland Steel Co., Sparrows Point, Md.

Georgia Coast & Piedmont Railway has ordered 2 10-wheel locomotives from Baldwin's.

Bristol (Tenn.) Traction Co. is expected to buy some new cars for operating the Holston Valley Railroad, which it is converting to electric motive power.

Charlotte Harbor & Northern Railroad will receive 1000 tons of rails from the Maryland Steel Co.

Missouri & North Arkansas Railroad has ordered another gas-electric car from the General Electric Co., Schenectady, N. Y.

People's Railroad Co., Fairhope, Ala., is in the market for a mile of 56-pound first-class relaying rails. E. B. Gaston is president.

Norfolk & Western Railway has ordered 300 tons of bridge steel and 300 tons of other structural steel.

Piedmont Northern Lines, Charlotte, N. C., are receiving 6 electric locomotives built for them by the General Electric Co. They weigh 63½ tons each.

Tennessee Central Railroad has ordered 2500 tons of rails from the Tennessee Coal, Iron & Railroad Co.

Seaboard Air Line is reported about to purchase 10 passenger and 15 freight locomotives.

### Norfolk Southern's New President.

Joseph H. Young, who last year retired from the presidency of the Spokane, Portland & Seattle Railway, has been elected president of the Norfolk Southern Railroad to succeed Charles H. Hix, who resigned May 15. Mr. Young, who is 50 years of age, is a native of Salt Lake City, and was educated at the University of Utah. He began his railroad career in 1882 with the Utah Central Railway, and has seen service with leading lines of the West. He has now assumed his duties as head of the Norfolk Southern, and in company with former President Hix is making a trip over its lines to become acquainted with them. Mr. Hix has been president of the road for about 18 months. He was formerly vice-president and general manager of the Seaboard Air Line. Upon handing in his resignation he said he wished to take a rest after having been engaged actively in the railroad business for 33 years.

### Hagerstown & Frederick.

The Hagerstown & Frederick Railroad Co. has increased its capital stock from \$3,000,000 to \$4,200,000. The company recently interested new money in its enterprises, and the filing of an amendment to its charter is to fulfil the financial plans which have now been adopted. Out of its original capital stock there has been issued \$1,527,000 of common and \$635,000 of preferred. The company includes seven constituent corporations,

which provide railroad, light and power service in Frederick and Hagerstown, Md., besides in other places between and adjacent to those cities. An extension to Brunswick, Md., is to be built. It is contemplated to issue \$1,200,000 more of preferred stock at some time in the future to retire bonds. Emory L. Coblenz of Frederick is president.

### Railway and Electric Combine.

The Delta Light & Traction Co., capital \$200,000, recently chartered in Mississippi, has closed a deal by which it has obtained four public utility plants. They are the Greenville (Miss.) Electric Light & Street Railway Co., the Riverside Transmission Co. of the same place, the Lake Village (Ark.) Light & Power Co. and the Chicot Light & Power Co. of Chicot county, Arkansas. The first has street railway and power plant at Greenville, the second has a transmission cable line conveying electricity from Greenville to various points in Mississippi and Arkansas, and the third and fourth are engaged in the light and power business in their respective localities. The deal represents, it is estimated, more than \$400,000 of property, and the several companies have been operated by the Delta Electric Light, Power & Manufacturing Co.

F. N. Robertshaw, president of the Citizens' Bank of Greenville, is president of the new company; L. K. Saulbury of Memphis, Tenn., is vice-president, and, it is said, is the majority stockholder. Ralph B. Claggett of Greenville is secretary-treasurer and manager. E. J. Lenz, also of Greenville, is superintendent. Among others interested are A. S. Buchanan and R. S. Fant of Memphis. Branch offices will be established in the latter city. Improvements and extensions to the various plants will be made as required and the service will be benefited.

### Street Railway at West Palm Beach.

E. Burton Garretson of the Inlet City Development Co., Riviera and West Palm Beach, Fla., writes concerning the street railway franchise granted at West Palm Beach to Col. C. N. Newcomb that it is expected to begin construction in about 60 days and build the line from Riviera opposite the inlet, southward to West Palm Beach, four miles. It is further expected to start work on the city lines in West Palm Beach within 30 days after the proposed routes over various streets have been approved by the City Council to which the plan has been submitted. L. S. Scott of Long Island, N. Y., will probably be chief engineer, with office at West Palm Beach. Survey is practically complete for all the proposed lines.

At Riviera Colonel Newcomb has turned over a 20-room clubhouse to the citizens of Palm Beach county and Florida for an automobile club which is now being organized, and for which 150 members are already obtained. The club is situated on a terrace overlooking Lake Worth and the ocean. It will fill a long-felt want, especially during the tourist season.

The railway is expected to aid in developing land owned by Colonel Newcomb at Riviera.

### Mobile & Ohio General Bonds.

President Fairfax Harrison of the Mobile & Ohio Railroad has issued a notice calling a special meeting of stockholders at Mobile, July 14, to provide for increasing the bonded debt of the company to not over \$50,000,000 and also to authorize it to issue \$3,000,000 of three-year notes. Bonds under the proposed new mortgage are to be issued from time to time for refunding or as may otherwise be necessary, the rates of interest to be fixed for each series issued as may be most desirable at the time of making an issue. Some of these bonds will be used to retire the notes. This proposed financial plan is similar to plans adopted by other roads to cover all bonded debt under one mortgage.

### Stone & Webster Will Build Line.

A report from Fort Worth, Tex., says that a contract has been formally closed between E. E. Baldrige and others, who organized the Fort Worth-Denton Traction Co. to build a line about 34 miles long between the two places, and the Stone & Webster interests of Boston, who control the Fort Worth street railway and the



interurban line from there to Dallas, by which the latter will build the road.

G. H. Clifford, general manager at Fort Worth for the Northern Texas Traction Co., which operates the electric railway to Dallas, is quoted saying that the new line will be built and in operation by next spring. Survey is already made by John Mead of Fort Worth, and the rights of way and bonuses of \$75,000 are to be turned over to the new owners, who agree to proceed with the construction as soon as they can assemble the forces necessary.

It is further stated that the company was organized by Fort Worth business men with the purpose of turning it over to Stone & Webster always in view, so that the line might be built and operated by experienced people.

#### Bonds in a Railroad Merger.

A syndicate is being organized in Baltimore and New York to underwrite \$2,325,000 of first mortgage 6 per cent. bonds of the Charleston Northern Railroad and \$1,250,000 of first mortgage 6 per cent. bonds of the North & South Carolina Railroad, principal and interest being guaranteed by the Seaboard Air Line Railway.

The Charleston Northern, a line 57 miles long, is now under construction from Andrews to Charleston, S. C., and when completed will provide the last link in a through route from Hamlet, N. C., on the Seaboard Air Line, to Charleston. The other road extends from Hamlet to Poston, S. C., connecting there with a branch of the Georgetown & Western, extending from there to Andrews, and which, it is understood, will ultimately be made part of the Carolina, Atlantic & Western Railway, which is the name of the company under which the Charleston Northern, the North & South Carolina and the South Carolina Western lines, commonly known as the Bonsal roads, have been merged.

#### United Railways' Financing.

The United Railways & Electric Co. of Baltimore has decided to issue \$1,000,000 of 5 per cent. two-year convertible notes, and to also sell about \$550,000 of Maryland Electric Railways Co. (a subsidiary corporation) first mortgage 5 per cent. bonds to provide for capital requirements during the next two years. The bond proceeds are to pay for the 85 new street cars recently ordered. The notes may be converted into common stock at \$33½ per share.

#### Nonconah Terminal Finished.

The Illinois Central Railroad has completed its new terminal yards, shops and roundhouse at Nonconah, in the suburbs of Memphis, Tenn. The yard track capacity is 2850 cars. It is expected that ultimately 1500 men will be employed there; 300 are now engaged. Dwellings are being erected.

#### Gas-Electric Motor Service.

The Yazoo & Mississippi Valley Railroad announces that it will establish a fast interurban service with gasoline-electric motor cars between New Orleans, Kerner and Burnside, La., within a few weeks. Six cars are being built by the General Electric Co. for the railroad.

#### Railroad Notes.

The receivers' sale of the Atlanta, Birmingham & Atlantic Railway and the Alabama Terminal Co. of the same road have been postponed until June 5 and 6, respectively. The committee, of which George C. Clarke, Jr., is chairman, has suggested a new reorganization plan that it will endeavor to fulfil.

A. H. Ford, president of the Birmingham Railway, Light & Power Co., has resigned to become vice-president and general manager of the Cumberland County Power & Light Co. of Portland, Maine. He has been in Birmingham for seven years, and will assume the duties of his new position on June 1.

Contract for paving the Dallas-Oak Cliff viaduct at Dallas, Tex., has been awarded at \$60,749.92. It calls for creosoted wood blocks and Cullom, Bavousett & Co. of Dallas are the contractors.

## TEXTILES

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the MANUFACTURERS RECORD. We shall be glad to have such matters at all times, and also to have any general discussion relating to cotton matters.

#### Revolution Cotton Mills' Addition.

Revolution Cotton Mills, Greensboro, N. C., is proceeding with the construction of its big addition previously announced, all contracts having been awarded. Final plans call for 40,000 spindles, 1100 looms, 700 cards, etc., and the following buildings: Four-story 303x130-foot finishing building, with 50x36-foot office building attached; one-story-and-basement 500x130-foot weaving mill; two-story 55x130-foot carding and spinning mill; one-story 100x85-foot cotton-opening room; one-story 503x100-foot storage warehouse. The company has not decided as to building a power-house this year, but if its decision is affirmative it will construct a steam-driven plant of 4000 kilowatts capacity. C. R. Makepeace & Co., Providence, R. I., are the architects and engineers for this big enlargement.

#### Clinchfield Cotton Factory.

Clinchfield Manufacturing Co., Marion, N. C., has awarded contract to T. C. Thompson & Bros., Charlotte, N. C., to erect the buildings, costing \$150,000, for its cotton-cloth mill. Main structure to be three stories high and 350x132 feet, with boiler and engine-room 100x50 feet. Contracts have also been awarded for the machinery, including 20,000 spindles and 600 looms. The rope drive power plant will cost \$35,000. Contract for engine was awarded to Nordberg Manufacturing Co. of Milwaukee; for boilers (of Manning type) to R. D. Cole Manufacturing Co. of Newnan, Ga., and for pumps to Buffalo (N. Y.) Steam Pump Co. Details of the Clinchfield Manufacturing Co.'s organization, with \$500,000 capital, etc., were recently stated.

#### To Enlarge Banna Mill.

Banna Manufacturing Co., Goldville, S. C., mentioned last week as increasing capital stock from \$225,000 to \$325,000, will enlarge its plant, and has let all contracts. It will erect a 144x25-foot mill addition, of brick construction, build 10 operatives' houses, etc., at a cost of about \$10,000, and add 4096 spindles, with 96 looms, costing about \$30,000. This machinery will increase the company's equipment to 14,224 spindles and 352

looms. Shand Engineering Co., Columbia, S. C., is architect and engineer in charge.

#### Shamrock Damask Mills.

Shamrock Damask Mills, Landrum, S. C., will erect 100x66-foot mill-construction building costing about \$3000 and install 20 looms, belt-driven electrical power equipment, etc. (all purchased), costing about \$12,000, for daily capacity of 1000 yards of damask. This company, mentioned last week as incorporated, has organized with \$20,000 capital stock and the following officers: H. L. Spears, president; Grey B. Hampton, vice-president; J. R. Mallory, treasurer and manager.

#### The Cotton Movement.

In his report for May 15, Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, shows that the amount of cotton brought into sight in 257 days of the present season was 13,947,050 bales, an increase over the same period last season of 650,714 bales. The exports were 8,258,591 bales, an increase of 381,576 bales. The takings were, by Northern spinners, 2,322,007 bales, a decrease of 88,841 bales; by Southern spinners, 2,751,054 bales, an increase of 197,205 bales.

#### Textile Notes.

F. S. Drury, Morganton, N. C., will install machinery for knitting hosiery. He has building and power plant.

Fidelity Hosiery Mills, Newton, N. C., will add 21 knitting machines, increasing daily production about 120 dozen pairs of hosiery. This new machinery has been ordered.

Halifax (N. C.) Hosiery Mills has been organized by Archie McDowell, president of the Scotland Neck (N. C.) Cotton Mills. This company will install 40 knitting machines for hosiery production.

Louise Knitting Mills Co., East Durham, N. C., recently incorporated with \$50,000 capital stock, has organized with following officers: W. T. Cole, president; J. H. Stone, vice-president; E. C. Stone, secretary-treasurer. It has installed 50 knitting machines and will add 30 machines, driven by electric power, for knitting hosiery.

#### Sale of Railroad.

The late sale of the Register & Glenville Railroad of Georgia under receivership proceedings for \$225,000 to the Henry Talmadge Company of New York and the Savannah Trust Co. of Savannah, Ga., has been confirmed by the court, the purchase being made on behalf of the lien against the property. The road was owned by the Perkins Lumber Co. It is about 41 miles long from Register to Glenville, with a three-mile branch from Hagan to Claxton, Ga.



CRYSTAL SPRINGS COTTON MILL.

A \$600,000 plant recently completed by Crystal Springs Bleachery Co., Chickamauga, Ga.; 20,100 spindles, 700 automatic looms, etc., electrically driven; 1090-kilowatt steam turbine; daily capacity, 50,000 yards of cloth for cotton bags; 250 operatives; main building 380x135 feet; architects and engineers for plant, Lockwood, Greene & Co. of Boston.

## MECHANICAL

Illustrations and descriptions having news value pertaining to developments in machinery, mechanical devices and inventions will be considered for use in this department.

### American Cyanamid Plant at Niagara Falls.

When scientists learned how to extract nitrogen from the atmosphere, the supply of which is unlimited (and of few things with which man is acquainted can this be said), they laid the foundation for making certain the rebuilding of the fertility of soil. This made possible the creation of an industry unlike that which by mining the raw materials out of the earth tends to the ex-

average yield, especially in the section tributary to the Appalachian water-powers, and it will bring into use every available power. It will have an influence almost beyond comprehension in enriching the whole central South."

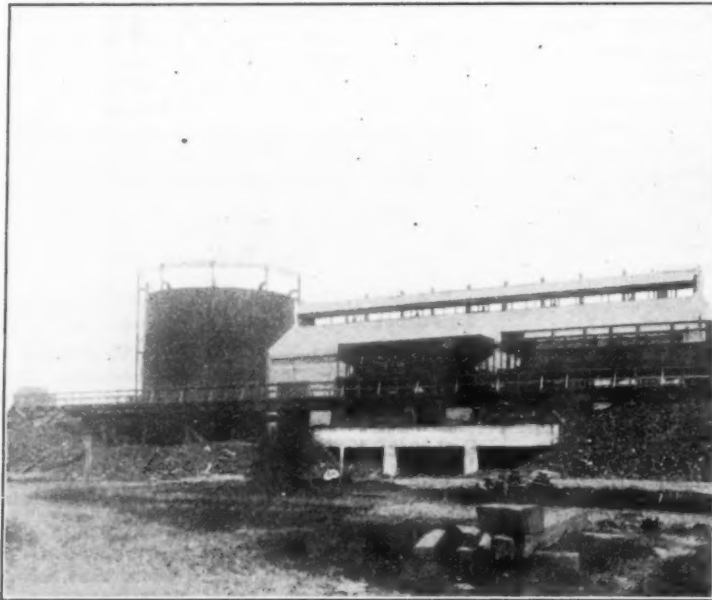
That enthusiasm has not yet been realized, because in matters of such great extent realization is sometimes slower than anticipated. In this case, while the South has one experimental plant of moderate size for extracting nitrogen, it lost a \$4,000,000 plant a year or more ago because some of the conservation faddists had misled the country to such an extent that permission to develop a large water-power site in Alabama and use it as a location for the establishment of a \$4,000,000 atmospheric nitrogen plant was denied, and the money was transferred to Canada. Here was an operation which would have drawn from the atmosphere

The vastness of the water-powers of the South, which will eventually be utilized when saner counsels prevail as to the development of these powers for the establishment of atmospheric nitrogen plants, make interesting some facts in regard to this method of extracting nitrogen as it is now being commercially worked out at Niagara, and where a large increase in a long-established plant is being made.

In 1895 two German scientists, Drs. Frank and Caro, found that when nitrogen gas is conducted through a hot mass of calcium carbide there is produced a compound known as cyanamid, very rich in nitrogen.

This form of combined nitrogen was found to possess particular value as a fertilizer, and its use for this purpose has developed an enormous industry. Cyanamid factories have been established all over the world. One of the largest of these is located at Niagara Falls, On-

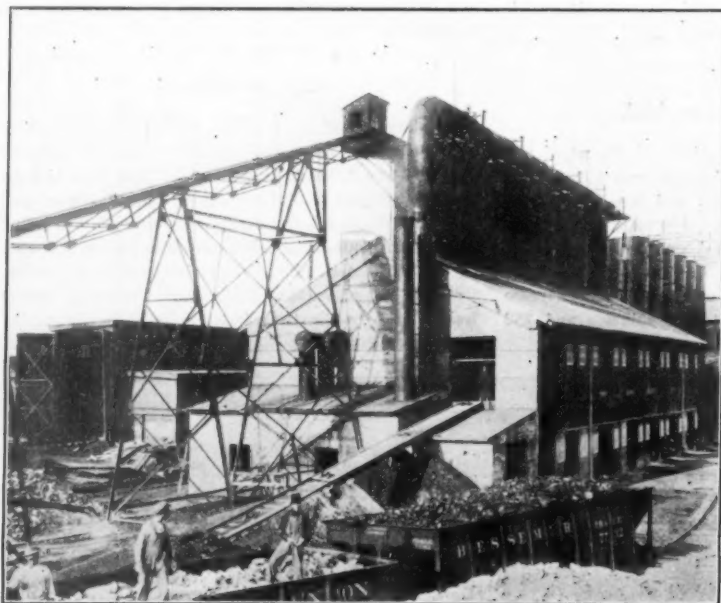
### VIEWS OF AMERICAN CYANAMID PLANT AT NIAGARA FALLS.



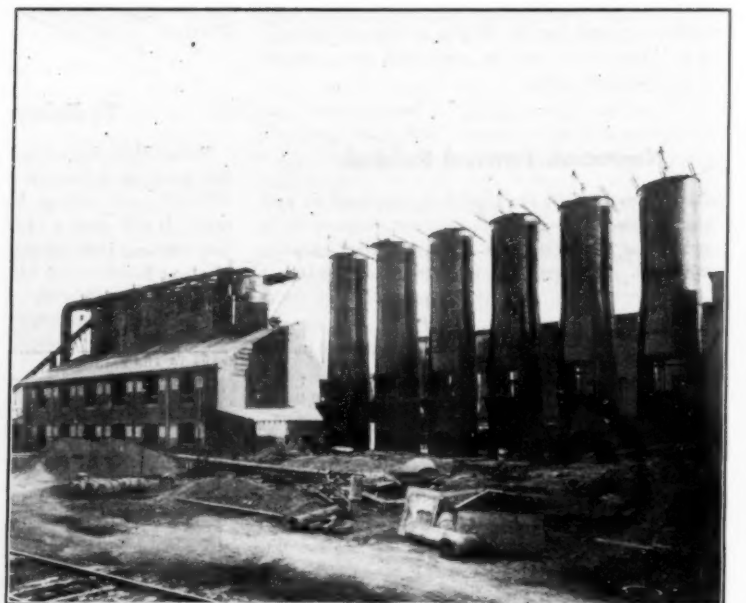
COAL-HANDLING ARRANGEMENTS FOR RETORT-HOUSE.



INCLINE FOR CONVEYING LIMESTONE TO TOP OF KILN.



VIEW OF THE PRESENT PLANT IN OPERATION.



KILN SHELLS COMPLETED FOR DOUBLING THE PLANT.

haustion of the supply, for there can be no exhaustion of this available raw material.

The first discovery of this system was heralded by economic students as of more vital importance to the South than to any other country, or any other section, because of the vast supply of available water power needed by reason of its cheapness for the operation of plants for this purpose.

Some eight or ten years ago a New York expert in his enthusiasm over the demonstration of the success of extracting nitrogen from the atmosphere, and contemplating the extent of water-powers available in the South, said to the MANUFACTURERS RECORD:

"This will work the greatest revolution ever seen in the South. It will make possible the restoration of the fertility of Southern soil; it will vastly increase the

the nitrogen so essential in the fertilization of soil, which would have used a stream whose power has for unnumbered centuries run its course idly to the sea, yielding nothing of value to anyone. This power would have been harnessed and made to serve man's best interests in producing nitrogen. The South would have had one more industrial enterprise using hitherto unused and wasted water-power, and using hitherto unutilized atmospheric nitrogen, and giving to this section the benefit of the nitrogen for the fertilization of the soil.

This is only another illustration of how often theorists without practical knowledge are enabled to halt a development which would be worth more to the country than all that these theorists could accomplish if they lived a thousand years.

tario, Canada, where large quantities of electricity, required in this industry, can be obtained at low cost.

The American Cyanamid Co. owns the sole right to manufacture and sell cyanamid in America. Its factories at Niagara Falls began operations on January 1, 1910. The original plant had an output of 12,000 tons a year, but this was increased during 1912 to approximately 32,000 tons a year, and further extensions are under way to give an annual output of 64,000 tons.

From the commencement of operations at Niagara Falls it was clear that a plant capable of producing 12,000 tons per annum was totally unable to meet the market requirements, but the directors of the American Cyanamid Co. adopted the policy that they would thoroughly prove the commercial practicability of and demand for cyanamid before building a large plant. After



two years' experience they realized that the product could be looked upon as an undoubted commercial success. Methods of manufacture have been simplified and cheapened, and it is now necessary to double the existing plant in order to cope with the increasing orders.

Nitrogen is the most important of the plant foods. It is usually the first element to become deficient in cultivated soils.

Scientists say that all the combined nitrogen now in existence on the earth's surface came from the atmosphere at some time. Previous to the discovery of cyanamid the only practical means of directly fixing atmospheric nitrogen was by the action of bacteria. These bacteria, themselves living on plants or plant refuse, take nitrogen from the air and combine it into chemical forms that plants can absorb. If plants were not removed, but were left to decay where they grow, the fertility of the soil would probably never decrease. When crops are removed, however, not only is the nitrogen carried away, but also the plant matter on which the bacteria feed. Then, in order to maintain fertility, it is necessary to restore combined nitrogen to the soil from other sources.

Cyanamid is a bluish-black, odorless, powdered material. It contains from 18 to 20 per cent. ammonia about 12 per cent. carbon, or lampblack, and the equivalent of about 70 pounds of slaked lime. The material is shipped in burlap bags, and can be stored indefinitely.

Cyanamid nitrogen is readily soluble. Ninety-six per cent. will dissolve out in cold water, and is therefore available as plant food. On contact with the soil it reacts quickly and forms first the organic compound, Urea, and then changes into the form of double ammonium compounds. These compounds are not leached or washed out of the soil, but are made available to crops by bacterial action and the solvent effects of plant roots. This action insures a slow, steady supply of nitrogen that has the advantage of not overfeeding crops a few weeks and then starving them, but of supplying this element throughout their principal period of growth. Since the soil duration of cyanamid nitrogen is from 60 to 80 days, crops are not fed when they should be maturing, and therefore it is said ripen earlier and more uniformly.

The beneficial action of lime is well known to farmers. Briefly, its advantages are as follows: (1.) It corrects soil acidity and produces conditions favorable for the growth and activity of nitrifying bacteria, which supply plants with much combined nitrogen. These bacteria are destroyed by acid conditions, but thrive in limed soils. (2.) Lime hastens the decomposition of waste products used as manures. (3.) It destroys many injurious insects and soil diseases. (4.) It makes available the phosphoric acid and potash often held too firmly in combination by some soils. (5.) It improves the mechanical condition of all soils, making clay more porous and sand more retentive.

The manufacture of cyanamid depends upon the chemical fact that calcium carbide at a high heat combines with atmospheric nitrogen and forms calcium cyanamide. Calcium carbide is made by fusing together lime and coke in an electric furnace. The carbide is placed in the ovens heated by electricity to a white heat, and nitrogen is led into the ovens and is there combined with the carbide, forming calcium cyanamide. After cooling, this material is ground, treated with water and put through a mechanical finishing process.

It will readily be seen that for economical production of cyanamid the plant must be located where electricity can be secured at the lowest possible cost.

Before the installation of the cyanamid plant at Niagara Falls another matter of importance was to determine the kind of reducing gas to be used in the preparation of the nitrogen. After careful consideration a coal-gas plant was decided upon, as the entire output of coke could be used in the manufacture of calcium carbide and the coal gas gave the greatest amount of carbon content for use in the nitrogen ovens.

The nitrogen ovens consist of a series of vertical retorts heated by small individual furnaces. Copper oxide is placed in these retorts, and when the retorts are brought to the proper temperature air is forced through the retorts and the oxygen of the air combined with the copper as cupric oxide, leaving the nitrogen free. The air is then shut off, and as the oxide has gradually become foul during this cycle, coal gas is then passed through the retort, which acts as a revivifier for the reducing agent. The nitrogen is then forced through pipes into the electric furnaces, where it combines with the calcium carbide and forms calcium cyanamide, or commercial cyanamid.

The coal-gas plant for this Niagara undertaking was

designed and installed by the Improved Equipment Co. of New York city, and has a capacity of approximately 500,000 cubic feet per 24 hours. There are seven benches of sixes equipped with the Doherty bench fuel economizer and sectional silica retorts and settings.

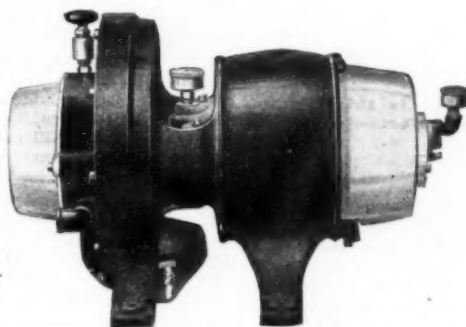
The lime plant for the production of lime used in the manufacture of cyanamid was also designed and installed by the Improved Equipment Co., and the original plant consisted of six Doherty-Eldred limekilns equipped with the Eldred process and induced draft.

The accompanying cuts give an idea of some of the features of this installation and indicates its size.

### Schroeder Electric-Lighting Plant.

A portable electric-lighting plant in which the power unit and the electric unit are closely connected, and which is particularly adapted to isolated places, is manufactured by the Schroeder Electric Co., Evansville, Ind.

The plant shown in the accompanying illustration generates one kilowatt, occupies a floor space of 18x28 inches, and weighs only 290 pounds. It consists of a steam turbine direct connected to the generator, and requires 75 pounds steam pressure. It will operate 35 16-candle-power tungsten incandescent lamps.



COMBINED TURBINE AND ELECTRIC GENERATOR FOR LIGHTING PLANT.

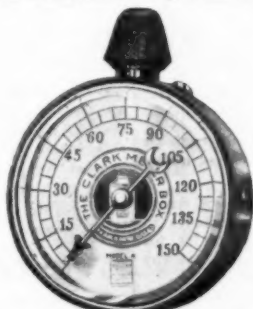
A still smaller type of Schroeder portable electric-lighting plant, weighing 200 pounds, develops three-quarters kilowatt. It will light 25 16-candle-power 110-volt tungsten incandescent lamps.

The increasing demand for convenient electric-lighting plants that may be used in individual buildings, lumber camps, about oil wells, etc., gives particular interest to this small installation. The larger plant operates at 2400 revolutions per minute and the smaller one at 2800 revolutions per minute.

### Clark Water Line Inspectors' Gauge.

The inspectors' gauge shown in the accompanying illustration is manufactured by the H. W. Clark Company, Mattoon, Ill., and is designed to be used to detect leaks in the smaller water pipes. Its operation is based on the loss of pressure occasioned by leaks, which may be detected even when so slight that the water service is not noticeably affected.

Leaks which would entail large annual losses without



CLARK INSPECTORS' GAUGE.

detection are quickly located by the water line inspector when using the Clark gauge. It may be connected at the house water pipe, and thus any leak between consecutive houses located. It has been the experience that great quantities of water have been wasted by water systems annually from underground and undetected leaks. By connecting up this Clark Inspectors' gauge, the consideration of tightness of the system between points tested is readily determined, and the repair gang, by prompt action, may prevent continued loss.

This and other water-works appliances manufactured by the H. W. Clark Company are described in catalogue "N" issued by the company.

### The Pathfinder Road Grader.

Road graders as manufactured by the A. L. Greenberg Iron Co., Terre-Haute, Ind., are made of large and small sizes, of which the small size is shown in the accompanying illustration. It is known as the Pathfinder Junior Grader, designed for light weight and general use. The machine weighs 1700 pounds, and can be operated by one man and one team. If necessary for heavy work or difficult soil, it is claimed to be strong enough for as many as six horses.

The frame is made of four-inch channel iron, and is 10 feet long by 2 feet 6 inches wide. The raising and



lowering device is controlled by hand wheels connected directly with high-speed worm gear.

For Southern States a special machine is built, with a lever device placed on the frame covering the rear axle, which prevents skidding and side draft.

The mold board on the grader is reversible, with cutting edge at top and bottom. It is 6 feet long, and may be set to cut 9 inches outside of front wheels.

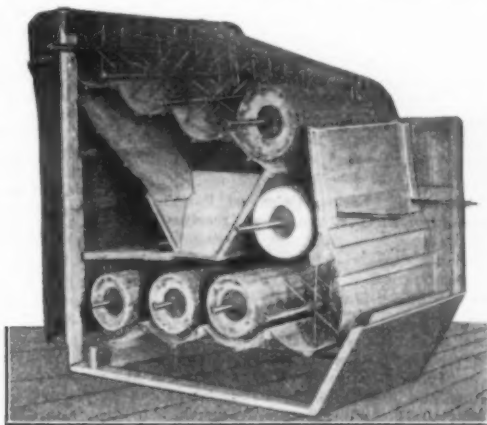
The hitching arrangement on the grader is low, so that it pulls well in line with the cutting point. The front wheels will turn completely under the frame, which insures free movement when turning.

A special catalogue is issued and will be sent, with other information regarding the company's products, to interested persons on request.

### Improved Cotton Cleaner and Boll Machine.

As a result of their experience with cotton-cleaning machinery and in making repairs to cotton-ginning machinery, Williams & Mills, Elk City, Okla., have developed and now manufacture the Williams improved cotton cleaner and boll machine shown in the accompanying illustration.

In its construction the screens are placed under beaters and picker rolls, so as to eliminate clogging and choking and the consequent necessity of frequent clean-



WILLIAMS COTTON CLEANER AND BOLL MACHINE.

ing off. The air current that brings the cotton to the machine draws the trash through the screen, thus aiding the beaters to clean the cotton without mashing it.

The claims for this machine are that it will handle all conditions of cotton without choking troubles; that it will break the boll and clean cotton ready for gin without mashing it; that it cleans bolls both before and after crushing, and requires little attention and small power to operate it.

# Construction Department

## IN ORDER TO FOLLOW UP

Properly the Construction Department items, please bear in mind the following statements:

### EXPLANATORY

The MANUFACTURERS RECORD seeks to verify the items reported in its Construction Department by full investigation. It is often impossible to do this before the item must be printed or else lose its value as news, and in some items it is found advisable to make statements as "reported" or "rumored," and not as positive information. If our readers will note these points they will see the necessity of the discrimination. We are always glad to have our attention called to errors that may occur.

### HOW TO ADDRESS

The name of one or more incorporators of a newly incorporated enterprise should always be written on letter addressed to the official headquarters or to the town of the parties sought, as may be shown in the item. Sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. By following these general directions the postoffice will generally be enabled to deliver your mail promptly, although it is inevitable that some failure by the postal authorities to deliver mail to new concerns will occur, as our reports are often published before new companies are known and before they have any established office for the receipt of mail.

### WRITE PERSONAL LETTERS

In communicating with individuals and firms reported in these columns a letter written specifically about the matter reported will receive better and quicker attention than a circular. In most instances a return postal card or addressed and stamped envelope should be enclosed with letter.

In correspondence relating to information published in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

### DAILY BULLETIN

The Daily Bulletin of the Manufacturers Record is published every business day in order to give the earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southwest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is \$25 per year.

All advertising contracts in the Manufacturers Record for three months or longer include a subscription to the Daily Bulletin for the contract period, as well as a subscription to the Manufacturers Record.

### BRIDGES, CULVERTS, VIADUCTS

Ark., Gleason.—Faulkner and Conway counties let contract Larimer-Burgett Bridge Co., Memphis, Tenn., at \$7000 to construct steel bridge across Cadron Creek. (Lately noted.)

Fla., Dade City.—Pasco County Comms. let contract Vincennes Bridge Co., Vincennes, Ind., to construct bridges across Coote and Anclote rivers, and Edwards Construction Co., Tampa, Fla., to construct third bridge in Special Road Dist. No. 1; John Lloyd Minnis, Engr., Birmingham, Ala. (Call for bids lately noted.)

Ga., Vidalia.—Toombs county let contract Austin Bros., Atlanta, Ga., to construct Altamaha Drawbridge at Piney Bluff; width 16 ft.; require 500 ft. steel work and 1000 ft. trestling.

Ga., Rome.—Floyd county will build steel or concrete 60-ft. bridge across Silver Creek, near Rounsaville's Mill; Kelfer Lindsey, County Engr., Rome; bids until June 1; J. G. Pollock, Chmn. Board of Roads and Revenues. (See Machinery Wanted.)

Ky., Covington.—South Covington & Cincinnati Street Ry., Polk Lafone, Secy., is reported to have let contract American Bridge Co., 42 Broadway, New York, to construct steel bridge across Licking River at 12th St.; cost \$160,000 to \$200,000.

La., Lake Charles.—Calcasieu Parish Police Jury, E. C. House, Clerk, receives bids until June 2 to construct 2 swing bridges over Intercoastal Canal; plans and specifications in office Highway Dept., Calcasieu Parish. (See Machinery Wanted.)

La., New Orleans.—Arthur McGuirk, special bond attorney, Board of Port Comms., is reported as completing arrangements to construct bridge across Mississippi River at Nine-Mile Point; \$6,000,000 investment contemplated; steel structure 2 1/2-10 mi. long; main channel span, 1066 ft.; each shore span, 907 ft.; total length main bridge, 2280 ft.; extreme height towers above clear, 176 ft.; clear height of spans above high water, 85 ft.; E. L. Corthell, Great Barrington, Mass., to be advisory Engr.; H. McL. Harding, 17 Battery Pl., New York, to be Consult. Engr. (Lately noted.)

Md., Denton.—Caroline and Talbot counties petitioned Government for authority to construct bridge across Tuckahoe River; prepared plans and let contract; Harry Waldorf, Caroline county's engineer, Denton; Frank Seth, Talbot county's engineer, Easton.

Miss., Forest.—Supervisors' Dist. No. 1, Scott county, W. A. Turner, Secy. Highway Comms., will construct bridges in connection with 6 mi. road work; bids until June 1. (See Road and Street Work and Machinery Wanted.)

Miss., Pearlinton.—Hancock County Commissioners, Bay St. Louis, Miss., contemplate constructing bridge across Pearl River at Pearlinton.

Okla., Bridgeport.—Chicago, Rock Island & Pacific Ry., C. A. Morse, Ch. Engr., Chicago, Ill., will build steel bridge across South Canadian River to replace structure lately noted damaged by flood at loss of \$125,000.

Okla., Salina.—Salina township of Mayes county will construct bridge (probably concrete) across Grand River; plans not made. Address C. H. Pratt, Salina. (Lately noted voting \$20,000 bonds.)

S. C., Yorkville.—York county will construct steel bridge over Fishing Creek on Saluda Rd. Address County Comms.

Tenn., Nashville.—City, Davidson County and Louisville & Nashville R. R. (W. H. Courtenay, Ch. Engr., Louisville, Ky.) will let contract (exclusive of paving) at \$32,502.60 to Foy-Proctor Co. of Nashville to construct reinforced concrete viaduct over tracks of Louisville & Nashville R. R. at Cleveland St.; length 690 ft.; width 40 ft.; paving to cost \$3502.60 additional.

Tex., Fort Worth.—Tarrant county engineer will prepare plans for 2 steel bridges across Walnut Creek.

Tex., Galveston.—Gulf, Colorado & Santa Fe Ry., F. Merritt, Ch. Engr., includes in annual budget appropriation of \$54,764 for bridges, trestles and culverts. (See Railway Shops, Terminals, Roundhouses, etc.)

Tex., Cotulla.—LaSalle county will vote on \$45,000 bonds for bridge and road construction. Address County Comms.

Tex., Houston.—Harris County Comms. let contract Ed. Dickerson at \$1565 to construct creosoted wooden bridge over slough near Cypress Creek, on Westfield Rd. (Call for bids lately noted.)

Tex., Tyler.—International & Great Northern Ry., O. H. Crittendon, Ch. Engr., Houston, is reported as contemplating construction of steel and concrete viaduct across East Elm St.

Tex., Waco.—McLennan County, W. T. Lockwood, Auditor, receives bids until June

15 for 5 separate road contracts and 5 separate bridge and culvert contracts in Road Dist. No. 2; bridge and culverts as follows: Steel I beams encased in concrete, reinforced concrete boxes, corrugated pipe and vitrified pipe, in amounts as designated on detail plans in office of R. J. Windrow, County Engr. (See Road and Street Work and Machinery Wanted.)

Va., Lynchburg.—Norfolk & Western Ry., J. E. Crawford, Ch. Engr., Roanoke, has had surveys made for bridge over tracks east of Ivy Creek trestle.

Va., Richmond.—Administrative Board let contract to H. L. Matthews at \$53,500 to construct steel girder and T-beam viaduct across James River at 9th St. to replace portion of present bridge; Chas. E. Bolling, City Engr.

W. Va., Branchland.—Lincoln County Commissioners, Hamlin, W. Va., let contract Armstrong & Coda, Huntington, W. Va., for concrete substructure, and Brackett Bridge Co., Cincinnati, O., at \$10,897 for superstructure of bridge over Guyandotte River; east span 100 ft.; channel span 300 ft.; west span 130 ft.; approach span 50 ft.; 16-ft. roadway; about 600 cu. yds. concrete substructure and 1000 lin. ft. piling; Leete-Maupin Engineering Co., Engr., Huntington. (Call for bids lately noted.)

W. Va., Buckhannon.—Upshur county will construct 3 concrete bridges across Middle Fork River near Kedron, Big Sand Run near Kesling and Deans Mill and across Laurel Fork of Sand Run; County Comms. receive bids until May 23; Ernest Phillips, Clerk.

W. Va., Elkins.—Randolph county will erect two bridges; one across Tygarts Valley River near Mingo; other over Leading Creek near Montrose; let separate contracts at courthouse, Elkins, June 2; F. A. Rowan, Clerk. (See Machinery Wanted.)

W. Va., Morgantown.—Monongalia county will erect proposed reinforced concrete rib arch bridge; estimated cost \$75,000; let contract in about 3 weeks; plans by Monongalia Valley Engineering Co., 208 High St., Morgantown. (See Machinery Wanted.)

W. Va., West Union.—City issued \$62,000 bridge, water, sewer, grading and paving bonds. Address The Mayor.

### CANNING AND PACKING PLANTS

Fla., Fort Myers.—Fort Myers Citrus Growers' Assn. will build packing plant; 80x120 ft.; semi-fireproof; concrete and steel; E. N. Maul, Archt., 230 W. Bay St., Jacksonville, Fla.; install packing-house machinery for grading and sizing oranges; daily capacity, 5 carloads oranges.

Fla., Leesburg.—Citrus Exchange will build packing plant; 90x160 ft.; electric power; cost \$25,000.

La., Ebenezer.—Ebenezer Canning Co. will increase capital stock from \$5000 to \$20,000; L. J. Sarver, Pres.; Wm. Morgan, V.-P.; F. C. Stutes, Secy.-Treas.; Wm. L. Rupe, Gen. Mgr.; proceeding with erection of \$1500 frame and concrete building; installing machinery, cost \$2000; daily capacity 20,000 cans. (Previously noted.)

La., Youngsville.—Youngsville Sugar Factory, R. O. Young, Mgr., practically purchased all equipment to operate plant for canning fruits and vegetables; will not erect building. (Lately noted.)

Tex., Marshall.—Geo. E. Kessi, Indianapolis, Ind., purchased land for cannery to cost \$30,000; propose operation for potatoes this season, with additions next year for general vegetable, fruit and berry canning.

W. Va., Wheeling.—Beuter Bros., capital \$5000, inceptd. by A. W. Forsch, Nell Moran, R. K. Beuter and others.

### CLAYWORKING PLANTS

Tex., Mexia.—Bricks.—Empire Brick Co., capital stock \$8000, inceptd. by W. A. Buckner, S. F. Kirkley, Jr., and R. W. Wright.

Va., Norfolk.—Brick.—Norfolk Pressed Brick Co., capital \$10,000, inceptd. by Rufus A. Brown, Pres.; Hugh S. Brown, Secy.; erect building costing \$3000.

### COAL MINES AND COKE OVENS

Ala., Fallston.—R. N. McDonough of McDonough Ore & Mining Co., 540 Brown-Marx Bldg., Birmingham, and others have, it is reported, purchased properties of Wadsworth Red Ash Coal Co., No-Ala Land & Mining Co. and Buck Coal Co. at \$175,000;

include 1200 acres with mining plants of 200 tons daily capacity coal; will double output and continue developments.

Ky., Cornettsville.—Willis Seaman and others, Dayton, O., reported to lease coal lands for development; capacity 30 to 40 tons.

Ky., Hazard.—Hazard Town Coal Co. organized with W. M. Jones Pres., Barbourville, Ky.; purchased several hundred acres coal land and will develop; install electrical mining plant; daily capacity, 1000 tons.

Ky., Jenkins.—Elkhorn Fuel Co., Clarence W. Watson, Pres., 14 Wall St., New York, and Jenkins, contemplates organizing company to acquire coal properties of Elkhorn Mining Corp. and other properties for full development; Elkhorn Mining Corp. leases 20,000 acres coal land from Elkhorn Fuel Co., and expects production during coming 12 months to be about 1,000,000 tons.

Ky., Viper.—E. L. Peters and C. E. Winfrey, Whitesburg, Ky., leased Brashear tract of coal land and will develop.

Tex., Campbellton.—E. Bedik of San Antonio is organizing company to mine coal.

W. Va., Philippi.—High Carbon Coal Co., capital stock \$75,000, inceptd. by Wm. T. George, R. E. Talbott, H. J. Wilcox and others.

### COTTON COMPRESSES AND GINS

Ga., Fitzgerald.—Fitzgerald Cotton Compress Co., capital stock \$35,000, inceptd. by E. K. Farmer, M. W. Garbutt and W. R. McLennon.

S. C., Charleston.—American High Density Compress Co., capital \$5000, inceptd. by C. R. Huie, Pres.; John B. Reeves, Sr., Secy.-Treas.

Tex., Crestonia.—Crestonia Gin Co., capital stock \$10,000, inceptd. by F. G. Hillje, W. R. King and R. Barbeck.

Tex., Cuero.—Cuero Cotton Compress Co. will extend shed, etc.; may build 128x200-ft. platform; now installing boiler, etc., at Victoria Mills. (See Cottonseed-oil Mills, Tex., Victoria, and Machinery Wanted.)

Tex., McKinney.—Farmers' Gin Co., capital \$10,000, will be inceptd.; acquire W. S. Matthes gin, remodel, equip and operate; G. B. Kindle, Pres.; J. D. White, V.-P.; A. J. Commons, Secy.-Treas.

Tex., Tyler.—Smith County Compress Co., A. Hicks, Pres., is building wharf, 100x150 ft., and will increase capacity of sheds to cover about 4000 bales of cotton; cost \$10,000.

Tex., Victoria.—Cuero Cotton Compress Co., Cuero, Tex., installing two 72x18 150 H. P. boilers, steam drum stack, etc. (See Tex., Cuero.)

### COTTONSEED-OIL MILLS

Miss., Moss Point.—Clay County Cotton Oil Co. will rebuild plant burned at loss of \$50,000.

N. C., Fremont.—Fremont Oil Mill Co., J. T. Hooks, Pres., contemplates installation of 2 high-pressure return-tubular boilers, about 150 H. P. each, with brick stack. (See Machinery Wanted.)

### DRAINAGE SYSTEMS

La., Houma.—Bayou Cane Land Co. let contract E. F. Morgan, Gibson to construct about 25 mi. drainage canals.

N. C., Wilmington.—Tidewater Power Co. purchased 2500 acres marsh and overflow lands at Wrightsville and Greenville Shoals; reclaim and develop as seaside resort; plans to drain, fill in low lands, provide parks, construct electric belt railway and automobile road from Wrightsville Sound to Wrightsville Beach and Greenville Sound, etc.

Tenn., Kingsport.—Kingsport Farms, Inc., J. Fred Johnson, Pres., and Jas. Dobyn, farm manager, will drain portions of 6300 acres land holdings purchased for agricultural purposes, etc. (See Land Developments.)

Tex., Angleton.—Angleton Drainage Dist. of Brazoria County votes June 13 on \$60,000 bonds for drainage. Address County Commissioners.

Tex., Beaumont.—Drainage Dist. No. 5 of Jefferson county will vote in July on \$175,000 bonds to construct drainage system. Address County Comms.

### ELECTRIC PLANTS

Ala., Ashford.—City votes June 8 on \$10,000 bonds to construct electric-light plant, etc. J. S. Radney, Mayor.



Fla., Atlantic Beach.—Atlantic Beach Hotel, H. M. Stanford, Mgr., will, in the fall, change present lighting system from direct to alternating current and construct about 1 mi. white way, furnishing electricity to about 85 cottages and for street lighting. (See Hotels.)

Fla., Avon Park.—Town granted franchise L. O. Feagin to construct electric-light and power plant and water-works; also plans to build ice plant. (Lately noted.)

Fla., Delray.—City will vote on bonds for electric-light plant and water-works. Address The Mayor.

Fla., Gulfport.—F. J. Davenport and others petitioned City Council for franchise for electric-light, gas and water plants.

Fla., Lakeland.—City will vote on \$70,000 bonds for light and water plant and \$25,000 for extension of light and water lines. Address The Mayor. (See Water-works.)

Fla., Leesburg.—Rufus Vinsant, Ashland, Ky., and others are reported to build electric-light system on Stone Mountain. (See Miscellaneous Structures under Buildings Proposed.)

Fla., Tampa.—Tampa Electric Co. will install 6 boilers in West Jackson St. powerhouse and erect radial brick chimney 200 ft. high; boilers to be equipped with automatic stoker type of coal conveyor; cost \$200,000.

Fla., Winter Haven.—Winter Haven Water, Ice & Light Co., W. F. Boyd, Mgr., contemplates additions to electric lines. (See Water-works.)

Ga., Montezuma.—Montezuma Light & Power Co., capital stock \$30,000, incptd. by E. B. Lewis, W. H. McKenzie, J. W. McKenzie and Montezuma Mfg. Co.

Ga., Savannah.—Savannah Lighting Co. will install additional equipment and improve generating and substations; reconstruct generating station; install 5000 H. P. turbo-generator with condensers, exciters, boilers and induced draft apparatus; construct water canals and conduits connecting with storage reservoirs having capacity 12,000 H. P.; install switchboard and wiring system with transformers; construct duplicate system overhead and underground cable lines connecting main generating station; provide automatic regulation of voltage at main and substations; remodel substation at State and Whitaker Sts., making structure fireproof, and equip with new switchboards, etc.; engaged Scofield Engr. Co., Philadelphia, to prepare plans and supervise improvements.

Ga., St. Marys.—St. Marys Ice & Light Co. will install electric plant latter part of year; at present is installing ice plant only. (Lately noted incptd., \$6000 capital, by S. C. Townsend and others.)

Ky., Leitchfield.—W. T. McCaskey Co. of Lansing, Mich., will build electric-light plant; 36x68 ft.; brick; capacity 75 H. P.; cost \$10,000; purchased machinery; building contractor, J. S. Hughes, Leitchfield; engineer, W. N. Moss, Leitchfield.

La., Melville.—City voted \$15,000 bonds to build electric-light plant; Engr. Anderson Offutt, 429 Carondelet St., New Orleans; L. J. Williams, Mayor. (Lately noted.)

Md., Cumberland.—Edison Electric Illuminating Co. let contract Wright, Richardson Co. to erect building for electric generating and power plant; brick and concrete; develop 6500 H. P.; 1½ mi. transmission; G. A. Eyer, Engr. (Lately noted.)

Miss., Greenville.—Delta Light & Traction Co., capital \$200,000, organized with Frank Robertshaw, Prest., Greenville; L. K. Saulsbury, V.-P., Memphis, Tenn.; Ralph Claggett, Secy.-Treas. and Gen. Mgr., and E. J. Lenz, Supt., both of Greenville; acquired Greenville Electric Light & Street Ry. Co., operating electric-light plant and 10 mi. of street railway and equipment; Riverside Transmission Co., operating supply cable from Greenville to Arkansas and Mississippi points; Chicot Light & Power Co., furnishing electric light and power for Chicot county, Arkansas, and Lake Village (Ark.) Light & Power Co.; transaction involves about \$400,000; plans various improvements; establish branch office in Central Bank Bldg., Memphis.

Mo., Kansas City.—Metropolitan Street Ry. Co. will install 10,000 K. W. Curtis turbo-generator in power station; has let contract.

Okla., Pauls Valley.—Washita Electric Power Co., R. K. Johnston, Secy.-Treas., will install lately-noted 200 K. W. generator; Corliss or oil engine.

S. C., Landrum.—Tryon Lighting Co. will build electric-light plant.

Tenn., Halls.—City will install 50 K. V. A. and 75 K. V. A. generators each to be direct connected to auto high-speed engine, street-lighting system, including switchboard, all to

be erected complete; above quantities approximate; R. C. Huston, Consult. Engr., Exchange Bldg., Memphis, Tenn.; bids until June 1; B. M. Archer, Mayor; lately noted. (See Machinery Wanted.)

Texas.—Southwestern Cities Electric Co. organized with authorized capital of \$6,000,000; acquired Comanche Light & Power Co., Comanche Ice Co., Mangum Electric Co., Pecos Valley Gas & Electric Co., Quanah Light & Ice Co., Chillicothe Light & Power Co. and Duncan Electric & Ice Co., in Texas, Oklahoma and New Mexico; John C. Keys, Prest., Lawton, Okla.; A. D. Converse, V.-P., New York; F. L. Search, Treas., Rochester, N. Y.; A. H. Mosle, Secy., New York.

Tex., Austin.—Austin Street Ry. will build addition to power-house; brick and concrete; estimated cost \$2000.

Tex., Buffalo.—City granted 25-year franchise to Andrew J. Holmes of Carthage, Tex.

Tex., Sanger.—C. P. Dodson will construct electric-light system.

Va., Charlottesville.—Charlottesville & Albemarle Ry. Co. will install additional equipment to substation; placed order for 200 K. W. rotary converter, three 65 kv-a transformers and switchboard.

Va., Williamsburg.—Bryant Timber Co., R. M. Bryant, Secy., Franklin, Va., will establish electric plant; install 100 H. P. direct-connected generator; furnish electricity for light and power.

## FLOUR, FEED AND MEAL MILLS

Ark., Childester.—Hindman Bros. Milling Co. incptd.

Ky., Caneyville.—Shrewsbury & Washburn will install sifter system in flour mill; let contract for machinery.

Mo., Bakersfield.—W. R. Jump & Son will establish lately-noted flour mill; erect frame building; install equipment, capacity 40 to 50 bbls. daily; also install water-wheel. (See Machinery Wanted.)

S. C., Charleston.—Blohm Milling Co., capital stock \$25,000, incptd. by John F. Rogge and Edw. C. Rogge, both of Elizabeth, N. J.

Tenn., Tasso.—Tasso Milling Co. has plans by J. H. Bates for improvements at mill; purchased scourer, middling mill, belting, pulleys, etc.

Tenn., Watauga.—Watauga Flour Mills will build new concrete work on its raceway and fore bay; also install dust collectors and receiving separator.

Tex., Dallas.—J. C. Long will erect 4-story elevator and corn mill and 2-story warehouse; stone and concrete; cost \$40,000.

Tex., Fort Worth.—A. H. McCarthy will establish mill for Graham flour and corn meal.

Tex., McKinney.—Collin County Mill & Elevator Co. has plans to rebuild plant; main building 90x50 ft.; 4 stories; first story 20 ft., second and third stories 16 ft. each, and fourth story 20 ft. high; warehouse 90x50 ft., 2 stories; office on second floor of warehouse; buildings of brick, with metal sashes and frames; engine-room, 1 story, 50x30 ft.; boiler-room, 40x30 ft.; both fire proof.

Tex., Wichita Falls.—Wichita Mill & Elevator Co. let contract Currell Construction Co., Chicago, to erect fireproof building; capacity 440,000 bu.; cost about \$150,000.

## FOUNDRY AND MACHINE PLANTS

Ala., Birmingham.—Structural Steel—Ingalls Iron Works organized with offices at 2618 1st Ave.; will erect structural steel plant costing \$100,000; 1-story 300x100-ft. factory, 2-story 70x30-ft. office, and warehouse of larger area than either factory or office; reinforced concrete and steel construction; R. I. Ingalls, Prest.; M. J. Gregg, V.-P.; M. F. Thornton, Secy.-Treas.

Fla., Ocala.—Machinery.—Ocala Iron Works will rebuild plant burned at loss of \$60,000; building plans not decided; install general equipment for machine shop and for manufacturing phosphate machinery. (See Machinery Wanted.)

Mo., St. Louis.—Electrical Specialties.—Safety Appliance Co., 323 California Ave., will continue mfr. of electrical specialties; plant fully equipped; Frank Carter, Prest., Treas. and Mgr.; Chas. Junghaus, V.-P.; Arthur Beck, Secy. (Lately noted incptd., capital stock \$40,000.)

Mo., St. Louis.—Heating Ranges, etc.—Economy Range Heater Mfg. Co., capital stock \$50,000, incptd. by Harry R. Jones, Hax O. Hessel and Wm. Heine.

S. C., Filbert.—Cotton Picker.—South Carolina Cotton Picker Co. organized to build (for the present) experimental demonstration

cotton picker, patents by J. Brown Niel, Mgr.; other officers include W. G. White, Prest., and J. C. Wilborn, Secy., both of Yorkville, S. C.; L. T. Nicholas, V.-P., Chester, S. C. (Previously noted.)

Tenn., Binghamton.—Car Shops.—American Car and Foundry Co., Box 1004, Memphis, Tenn., states does not propose to rebuild at present; continue operation in temporary quarters, using machinery from its other plants. (Lately noted to rebuild burned portion of plant.)

Tenn., Knoxville.—Castings.—Fulton Co. purchased all machinery to mfr. brass and iron castings; daily capacity 4000 lbs. brass and 2 tons iron castings; erect 3 buildings, 56x170 ft., 56x105 ft. and 50x125 ft.; all 1 story; fireproof; construction by owner. (Lately noted to expend \$50,000 to erect branch plant.)

Tex., Longview.—Plows.—Kelly Plow Factory will rebuild molding-room burned at loss of \$6000.

W. Va., Huntington.—Mine Cars.—Bagg Mine Car Co., care of Blair P. Wilson Real Estate Co., 706 First National Bank Bldg., will build mine-car works; purchased 16½-acre site; expects to expend \$250,000 on plant.

W. Va., Wheeling.—Pumps.—Humphrey Pump Construction Co., capital stock \$100,000, incptd. by Geo. A. Laughlin, Jos. C. Brady, W. S. Brady and others.

W. Va., Wheeling.—Pumps.—Humphrey Pump Construction Co., capital stock \$100,000, incptd. by Geo. A. Laughlin, Jos. C. Brady, W. S. Brady and others; main office, 1421 Chapline St.

## GAS AND OIL ENTERPRISES

Ala., Dothan.—Gas Plant.—Chamber of Commerce interested in securing establishment of gas plant; population above 10,000. Address N. T. Cobb, Secy.

Fla., Gulfport.—F. J. Davenport and others petitioned City Council for franchises for gas, electric-light and water plants.

Fla., St. Petersburg.—Gas Plant.—City voted \$148,000 bonds to construct gas plant; J. B. McCrary Co., Atlanta, Ga., previously noted as Engr. and Constr.; holders and boilers to be built by R. D. Cole Mfg. Co., Newnan, Ga., and gas generating plant by Gas Generating Co., Trenton, N. J.; pipe supplied by R. D. Wood & Co., Philadelphia, Pa.; about 20 mi. pipe lines, 12 in. diam. down.

La., Shreveport.—Queen Oil Co., capital stock \$100,000, incptd.

La., Shreveport.—Tri-State Oil & Gas Co., capital stock \$25,000, incptd.

N. C., Gastonia.—Gas Plant.—Gaston County Gas Co. (International Gas & Electric Co., holding company), 625 Stock Exchange Bldg., Philadelphia, Pa., organized; A. H. Nissley, Prest.; C. Bachman, V.-P.; J. F. Hayden, Secy.-Treas.; R. H. Hamilton, Engr., Gastonia; let contracts for water-gas apparatus, holder, etc.; initial capacity 3,000,000 cu. ft. per month. (Bachman & Co., Stock Exchange Bldg., Philadelphia, previously noted as to control company.)

Okla., Altus.—Jackson County Oil & Gas Co., capital stock \$10,000, incptd. by A. T. E. Hall, C. W. Hogsett and Wilbur McCleary.

Okla., Ardmore.—Columbus Christopher Oil & Gas Co., capital \$35,000, incptd. by J. D. Rawlings and C. E. Oakes of Ardmore and C. Christopher of Seattle, Wash.

Okla., Ardmore.—Daddy Oil & Gas Co., capital stock \$12,000, incptd. by C. D. Reeves and Mary B. Reeves of Ardmore and Roy Jenkins of Shawnee.

Okla., Ardmore.—Erin Oil & Gas Co., capital stock \$15,000, incptd. by D. J. Carpenter, J. A. Bristol of Elmore City and F. B. McElroy, Ardmore.

Okla., Avery.—Murphy Oil & Gas Co., capital stock \$100,000, incptd. by John Murphy, G. A. Robertson and Wm. Bolton.

Okla., Bartlesville.—Trainer Oil & Gas Co., capital stock \$10,000, incptd. by J. D. Talbot, G. E. Ledlie and L. A. Rowland.

Okla., Bartlesville.—Big Four Oil & Gas Co., capital stock \$10,000, incptd. by L. A. Rowland, G. E. Ledlie and J. D. Talbot.

Okla., Bartlesville.—Loralux Oil & Gas Co., capital \$10,000, incptd. by Jos. Loralux, M. E. Lasley and W. O. Brunsteter.

Okla., Carnegie.—Carnegie Oil Development Co., lately noted incptd., \$15,000 capital stock, by John W. McCall and C. H. Chambers, will open drilling equipment bids in September. (See Machinery Wanted.)

Okla., Lawton.—Lawton Drilling Co., capital stock \$25,000, incptd. by Frank V. Wright, E. L. Gregory and J. E. Michelson.

Okla., McCurtain.—Fort Smith Oil & Gas Co., capital stock \$15,000, incptd. by F. B. Patterson of McCurtain, A. G. Williams and W. R. Martin, both of Fort Smith, Ark.

Okla., Mead.—Wolf Hill Oil & Gas Co., capital stock \$10,000, incptd.; will drill for oil and gas near Mead; Johnson Franklin, Prest.; B. G. Brown, V.-P.; C. G. Cline, second V.-P.; W. T. Thaxton, Secy.; E. F. Rines, Treas.; main offices, Durant.

Okla., Muskogee.—Mazeppa Oil & Gas Co. (lately noted incptd.) will operate at Morris, Okla. (See Okla., Morris.)

Okla., Muskogee.—Cloudburst Oil & Gas Co., capital stock \$10,000, incptd. by E. C. Gray and J. P. Kennedy of Muskogee and E. B. Fisher of Denison, Tex.

Okla., Morris.—Mazeppa Oil & Gas Co., capital stock \$10,000, incptd. by Troy L. Powell and others; will drill 11 wells on leased property; completed one well, and now drilling No. 2; contemplates erection of power station upon completion of No. 4; ¼-mi. 2-in. pipe at present. (See Machinery Wanted.)

Okla., Norman.—Normangee Oil, Gas & Development Co., capital stock \$100,000, incptd.; drill for oil and gas on farm of W. H. Hibbitt.

Okla., Oklahoma City.—Healdton-Wheeler Oil & Gas Co., capital stock \$10,000, incptd. by Q. E. Burkhardt and Wm. Ribble of Oklahoma City and S. Haught of Falls, Okla.

Okla., Oklahoma City.—U. S. Production Guarantee Co., capital stock \$100,000, incptd. by O. P. Aulbach, A. W. Groselose and W. E. Pierce.

Okla., Oklahoma City.—Eram Oil & Gas Co., capital \$25,000, incptd. by Jesse D. Carnall and R. W. Dick of McAlester and Alva L. McDonald of El Reno.

Okla., Pawnee.—Hi-Test Oil & Gas Co., capital stock \$20,000, incptd. by Ralph E. Weller, Ed M. Kelly and T. Z. Swalley.

Okla., Perry.—Noble County Oil & Gas Co., capital stock \$10,000, incptd. by E. Byars of Perry, O. P. Sutherland and R. D. Gist of Amarillo, Tex.

Okla., Tulsa.—Navajo Petroleum Co., capital stock \$100,000, incptd. by N. J. Guiser of Tulsa, A. E. Humphreys and Frank Cox of Charleston, W. Va., and Thos. A. Merritt of Duluth, Minn.

Okla., Tulsa.—Centralia Oil & Gas Co., capital stock \$15,000, incptd. by Geo. Shiek, L. H. Armentrout and C. E. Kingall.

S. C., Chester.—Gas Plant.—Chester City Gas Co. (International Gas & Electric Co., holding company), 625 Stock Exchange Bldg., Philadelphia, Pa., organized; J. F. Hayden, Prest.; J. M. Tyson, V.-P.; A. H. Nissley, Secy.-Treas.; will construct gas plant. (Lately noted incptd., \$300,000 capital.)

S. C., Georgetown.—Gas Plant.—Georgetown Gas & Electric Co. (International Gas & Electric Co., holding company), 625 Stock Exchange Bldg., Philadelphia, Pa., organized; C. Bachman, Prest.; J. F. Hayden, Secy.; F. H. Hickok, Mgr.; let contracts for water-gas apparatus, holder, etc., for gas plant. (Bachman & Co., Stock Exchange Bldg., Philadelphia, Pa., previously noted to control company.)

Tenn., Jackson.—National Oil & Gas Co., capital \$25,000, incptd. by John A. Blackman, F. J. Murray, J. L. Lancaster and others.

Tex., Flanagan.—Panola Petroleum Co., capital stock \$30,000, incptd.; A. Deutsch, W. H. Stark and E. W. Brown.

Tex., Fort Worth.—China Creek Oil Co., capital stock \$50,000, incptd. by S. H. Garrett, J. T. Brooks, Lee L. Russell and W. O. Forbes.

Tex., Fort Arthur.—Oil Refining.—Gulf Refining Co., lately noted to make additions, will build and equip paraffine plant. (See Miscellaneous Factories.)

W. Va., Clarksburg.—Hardy Oil Co., capital stock \$900, incptd. by S. F. Rockman, J. E. Flosser and Geo. W. Mahias of Doman, D. H. Kuhn of Moorefield, W. Va., and E. F. Frye of Rio, W. Va., and others.

## ICE AND COLD-STORAGE PLANTS

Fla., Atlantic Beach.—Atlantic Beach Hotel, H. M. Stanford, Mgr., will, in the fall, install new ice plant and make improvements to engine-house; probably install Ball engines. (See Hotels.)

Fla., Avon Park.—L. O. Feagin plans to build ice factory. (See Electric Plants.)

Ga., Savannah.—Automatic Ice Co. (F. W. Edwary and others) will erect ice plant; 1 story; 75x100 ft.; sheet iron; let contract in June. (Lately noted incptd. with \$100,000 capital stock.)

Ga., St. Marys.—St. Marys Ice & Light Co. is installing ice plant; will install electric plant latter part of year. (Lately noted incptd., \$9000 capital, by S. C. Townsend and others.)

La., Rayville.—Ouachita Coca-Cola Bottling Works of Monroe, La., purchased Rayville Gay-Ola Bottling Works; plan to install ice plant. (See Miscellaneous Factories.)

Tex., Houston.—Houston Packing Co. will erect 3-story reinforced cold-storage plant on Ship Channel; cost \$50,000; Contr., American Construction Co., Houston.

Tex., Pharr.—Pharr Ice, Light & Power Co., capital stock \$40,000, inceptd. by S. R. Gawthrop, A. McColl, John A. Cook and W. H. McGrath.

Tex., Waelder.—Waelder Ice Co. will operate 6-ton ice plant; machinery (cost about \$5000) purchased; erect 30x60-ft. building, cost about \$600; R. D. Miller, Pres.; J. C. Henderson, V.-P.; S. H. Vaughn, Secy.-Treas.; J. S. Hardwick, Mgr.

W. Va., Wheeling.—East End Ice & Storage Co., capital stock \$50,000, organized by Jos. Greeding, G. W. Kalbitzer and others; having plans prepared for cold-storage plant.

### IRRIGATION SYSTEMS

Tex., Barstow.—Ward County Irrigation Dist. No. 1 voted \$475,000 bonds to construct storage dam and irrigation system; A. H. Dunlap, Engr.; Robt. L. McKnight, Secy. Directors. (Previously noted.)

Tex., Corpus Christi.—Fitch & Nix applied for permit to appropriate 200 cu. ft. water per second, for irrigation, developing power, construction and operation of water-works for 50,000 population, etc.; plan to construct dam across Nueces River of steel sheet piling to shut out salt water; reservoir will be 1½ mi. long in channel of river, 6 ft. deep, average width 200 ft.; holding capacity 465,000,000 gals.; impound water into Tule Lake and Tule Lake reservoir to cover 716 acres, filled to depth 12 ft.; holding capacity 2,255,000,000 gals.; propose irrigating 15,000 acres by pumping from reservoirs. (Lately noted.)

Tex., Harlingen.—Harlingen Drainage Dist. organized; will vote on \$700,000 bonds; repair and extend system so that it will irrigate 40,000 acres. Address Cameron County Commrs., Brownsville, Tex.

Tex., Wingate.—P. E. Lunsford contemplates constructing plant to irrigate land near Oak Creek in Runnels county.

### IRON AND STEEL PLANTS

Ala., Thomas.—Iron Furnace.—Republic Iron & Steel Co., general office, Youngstown, O., is completing previously noted reconstruction of No. 1 furnace; new furnace has 13-ft. diam. crucible, 20-ft. bosh, 13-ft. 3-in. stock line and 80 ft. high; connected to 26-ft.-3-in.-diam. dust catcher and No. 500 Muller patent gas washer; metal work about completed; cost of new work about \$150,000; daily capacity 300 tons high-grade foundry iron.

### LAND DEVELOPMENTS

Ala., Birmingham.—Birmingham Farm Garden Co. increased capital stock from \$80,000 to \$150,000.

Ala., Birmingham.—Southern Realty & Construction Co., capital stock \$20,000, inceptd.; C. C. Nesmith, Pres.; E. A. Morris, Secy.; L. E. Boyett, Treas.

Ala., Birmingham.—Palmetto Development Co., capital stock \$5000, inceptd.; A. C. Howze, Pres.; Henry R. Howze, V.-P.; M. L. McConnell, Secy.-Treas.

Ala., Mobile.—Alvin Nursery Co., capital \$10,000, inceptd.; S. Inaura, Pres.-Treas., Mobile; M. P. Baker, V.-P., Chicago.

Fla., Tampa.—Indian Rocks Development Co., S. R. Moore, Pres., will develop Indian Rocks as resort; has plans for drawbridge from mainland to Indian Rocks; distance about 100 yds. (Indian Rocks Realty Co. lately noted inceptd. with \$25,000 capital stock.)

Fla., Tampa.—Interstate Investment Co., capital \$1,500,000, organized with Jas. S. Floyd, Pres.-Treas.; L. E. Marshall, Secy., both of Atlanta, Ga.; Jas. T. Swann, V.-P., Tampa; W. Paul Vance, Asst. Secy., Tampa; will develop Swann properties in Ybor City Estuary and other parts of Tampa; main office Atlanta, in charge of Mr. Marshall; Mr. Swann in charge of Tampa offices; Swann Terminal Co. to be subsidiary of new company.

Ky., Buchel.—Hartman Land Co., capital stock \$9000, inceptd. by Geo. John J. and Kate Hartman.

La., New Orleans.—O. K. Farms Co., 1903 Perrin Bldg., organized; L. A. Merriero, Pres.; L. H. Merriero, Jr., V.-P.; Andrew Fitzpatrick, Secy.-Treas.; has 400 acres under cultivation of vegetables; portion will be divided into lots 95x450 ft.; 2 parallel streets will be constructed; cost of improvements not determined; M. Zanders, Engr., Gretna, La. (Lately noted inceptd., \$9000 capital.)

La., New Orleans.—New Orleans Land Co., F. C. Dahlgren, Secy.-Treas., lately noted inceptd., capital stock \$350,340, continues operation of established company.

La., Shreveport.—Southern Realty Co., capital stock \$40,000, inceptd.

S. C., Charleston.—East Shore Development Co. increased capital from \$2000 to \$50,000.

S. C., Kingstree.—Fidelity Development Co., capital \$10,000, inceptd. by J. F. Cooper, Hugh McCutchen and H. E. Montgomery.

Tenn., Chattanooga.—Chattanooga Floral Co. inceptd.; succeeds Geo. B. Haeger Floral Co.; J. Lindsey, Pres.; C. W. Duffy, V.-P.; Carl Burke, Secy.-Treas.

Tenn., Kingsport.—Kingsport Farms, Inc., organized with J. Fred Johnson, Pres., to develop 6300 acres purchased by John B. Dennis, C. Ledyard Blair and Mark W. Potter of New York; will drain portion of land and heavily lime soil; conduct agriculture, stock-raising and dairying; arranged for purchases of cattle, sheep and hogs; James Dobyn, Farm Mgr.

Va., Charlottesville.—Piedmont Fruit Co., capital \$25,000, inceptd.; Elmer C. Yetter, Pres., Minneapolis, Minn.; John H. Shaw, Secy., Charlottesville.

Va., Richmond.—Henrico Realty Corp., capital \$5,000, inceptd.; Henry S. Wallerstein, Pres.; Geo. C. Fitzhugh, Secy.

W. Va., Clarksburg.—Waverly Improvement Co., capital stock \$10,000, inceptd. by John E. Stealey, Chas. T. Stealey and Irvin R. Stealey.

### LUMBER MANUFACTURING

Fla., Apalachicola.—Bay City Sawmill Co. will erect dry-kiln, 50x120 ft.; ordinary construction; daily capacity, 50,000 ft. yellow pine. (Lately noted.)

Fla., Gainesville.—Tilghman Cypress Co. purchased cypress timber rights on 5000 acres in Levy county.

Ky., Colson.—John Litts, Coeburn, Va., reported to have purchased several thousand acres across Carr's Fork timber for development and to install band mill of 25,000 ft. capacity; also smaller mills.

La., Alexandria.—Long Pine Lumber Co., capital stock \$500,000, organized; acquired Bayou Rapids Lumber Co.'s properties, including mill at Alexandria and 14,000 acres pine timber in vicinity; Noah P. Sandereson, Pres., Texarkana, Tex.; W. D. Wadley, V.-P., Alexandria; J. K. Wadley, Secy.-Treas., Texarkana, Ark.; main office at Texarkana.

La., Tioga.—Lee Lumber Co. let contract Jas. Waldron, Tioga, to rebuild mill; 30x220 ft.; mill construction; install machinery. (Lately reported burned.)

La., Zona.—F. L. Sanford will rebuild lately-noted band mill; erect 36x240-ft. mill, 40x60-ft. boiler-house and 30x40-ft. engine-room; all supplies purchased.

Miss., Tylertown.—J. W. Caraway purchased 3500 acres long-leaf yellow pine in Marion and Walthall counties; will operate 2 mills; daily capacity, 50,000 ft. lumber; has mills and machinery. (Lately noted under Land Developments.)

Miss., Tylertown.—J. W. Caraway purchased for \$77,500 tract long-leaf yellow pine timber Walthall and Macon counties; will develop.

N. C., Mt. Olive.—Mt. Olive Fuel & Lumber Co. organized; J. R. Bell, Pres.; J. D. Pendleton, V.-P.; W. G. Shumate, Secy.-Treas.; will construct, by company labor, 30x60-ft. and 25x70-ft. frame buildings with metal roof; cost within \$1200; install planing-mill machinery, cost about \$2500; mfr. general building materials. (Lately noted inceptd., capital \$10,000.)

Tex., Dallas.—Mechanics' Planing Mill, A. J. Poirier, Mgr., 2315 Latimer St., will operate plant formerly known as Amarillo as Panhandle Planing Mill; erect building to cost \$750; cost of machinery \$6000. (Mr. Poirier lately noted having secured site and to erect mill.)

Tex., Hardin.—Chicago-Texas Timber Co., S. R. Robinson, Pres., will build circular saw mill; daily capacity 40,000 ft.; has office at 1302 Rector Bldg., Chicago.

Va., Chase City.—Box Shooks.—Jeffreys-Spaulding Mfg. Co., S. E. Spaulding, Mgr., let contract to J. T. & S. J. Reynolds, Chase City, to repair damage to building; boiler-room 18x36 ft.; practically fireproof; cost \$500; machinery will include collectors, blow pipe and fittings for boiler-room to cost \$350 or \$400 daily capacity 5000 complete boxes box shooks; lately reported damaged by fire. (See Machinery Wanted.)

Va., Pound.—Cline Lumber Co. reported to develop Hagan timber tract in Wise county, on Guests River; to install mills.

W. Va., Piedmont.—Piedmont Lumber Co.

inceptd. by Z. T. Kalbaugh of Piedmont, W. H. Mahie and B. M. Hoover of Elkins and others.

### METAL-WORKING PLANTS

Fla., Pinellas Park.—Tin Cans.—Florida Association, Dr. A. B. Davis, V.-P. and Gen. Mgr., St. Petersburg, Fla., and 1914 Cherry St., Philadelphia, Pa., is considering installing machinery to mfr. tin cans for syrup. (See Miscellaneous Factories and Machinery Wanted.)

Md., Hagerstown.—Milk Pails.—Hagerstown Sanitary Milk Pail Co., 330 Vista Ave., will manufacture dairy supplies; install stamping and sheet-metal working machinery; A. F. Demory, Pres.-Mgr. (Lately noted, under Miscellaneous Factories, inceptd. with \$5000 capital stock.)

Va., Cape Charles.—Automobile Springs.—Auto Anti-Rattle Co. (J. W. Coleburn interested) will produce wire spring for automobiles. (See Machinery Wanted.)

### MINING

Ark., Guion.—Sand.—G. T. Ratley of Carthage, Mo., is reported to organize company to operate glass-sand plant.

Ga., Tallapoosa.—Gold.—Royal Mines Co., capital stock \$100,000, inceptd. by H. H. Hawkins of Tallapoosa, Chas. Sumner of Birmingham, Ala., and C. K. Williams of Easton, Pa.

Mo., Granby.—J. R. Underwood will build concentrating plant on lease south of Granby.

Mo., Miami.—Lead and Zinc.—B. Ott and others organized company to develop 20-acre mining lease.

Mo., St. Louis.—Lead and Zinc.—St. Louis Mining & Trading Co., capital stock \$100,000, inceptd. by Edward Lohman, Bruno Rassieur and Chas. F. Ihrie.

N. C., Bryson City.—Clay and Mica.—Tuckasee Clay & Mica Co. organized; C. J. Hand, Pres.-Mgr.; V. M. Visscher, V.-P.; J. M. Hand, Secy.-Treas.; develop 47 acres; daily output 18 to 20 tons. (Lately noted inceptd., capital \$15,000.)

S. C., Charleston.—Quarries.—McCabe Quarries, Cement & Building Materials Co., capital stock \$50,000, inceptd.; C. B. Hulet, Pres.; C. C. McCabe, V.-P.; R. C. Black, Secy.-Treas.

Tenn., Knoxville.—Ores.—Southern Minerals Co., Holston National Bank Bldg. (previously noted), is inceptd. with \$200,000 capital stock; will explore, develop and deal in Southern mineral and gas lands, establish mills or smelting works, etc.; not ready to detail plans; Geo. W. Baxter, Pres.; L. D. Tyson and J. A. Allen Smith, V.-Ps.; Howard Cornick, Secy.; H. M. Johnson, Treas.; Geo. Blow, Mgr.; A. A. Blow, Consult. Engr.

Tenn., Telford.—Slate.—Telford (not "Tennessee") Slate Mining & Mfg. Co. lately noted inceptd. to develop 100 acres; W. F. Payne, Pres., Louisville, Ky.; C. E. Teague, V.-P.; J. L. Humphrey, Secy.-Mgr.; both of Telford; Thad. A. Cox, Treas., Johnson City, Tenn.; will install machinery. (See Machinery Wanted.)

Tex., Freeport.—Sulphur.—Freeport Texas Co. (S. M. Swenson & Sons, 37 Wall St., New York), owner of Freeport Sulphur Co., arranged to increase capital stock from \$1,500,000 to \$2,000,000; Westinghouse, Church, Kerr & Co., 37 Wall St., New York, Engrs., expect completion of previously described sulphur mines enlargement in July; capacity then to include simultaneous operation of three wells.

Tex., San Antonio.—Evergreen Mining Co., capital stock \$10,000, inceptd. by T. F. Smith, R. W. Carr and Mrs. J. S. Carr.

### MISCELLANEOUS CONSTRUCTION

Fla., Miami.—Wharves and Docks.—City voted \$170,000 bonds to construct wharves and docks within city limits and \$15,000 bonds for wharves and docks outside city limits; J. W. Watson, Mayor. (Lately noted.)

Fla., Sarasota.—Dredging.—Chas. Ringling let contract Burns Realty Co. to dredge yacht basin, and to Burns & McAlpin to construct concrete terrace 100 ft. square.

Ga., Albany.—Swimming Pool.—Y. M. C. A., A. A. Shedden, Pres., will construct swimming pool to be placed in addition to main building; 25x60 ft.; depth 3 to 7½ ft.; concrete tile; reported cost, \$12,000 to \$14,000.

Ga., Augusta.—Ripraping.—W. C. Langfitt, Col., Corps of Engrs., U. S. Engr. Office, Savannah, Ga., let contract A. J. Twigg & Son of Augusta at \$111,600 for ripraping bank of Savannah River from Center St. to east boundary; 3750 ft. long. (See Machinery Wanted.)

Ga., Savannah.—Gates.—Chatham County Commrs., C. Reuben Butler, Clerk, will construct 4 steel gates for Augustine Creek Outlet Rock; bids until June 11. (See Machinery Wanted.)

La., Baton Rouge.—Levees.—Executive Dept., Luther E. Hall, Governor, will construct following levees in Bossier parish on left bank of Red River; Bossier City Levee, 20,000 cu. yds.; Christiansa Levee, 60,000 cu. yds.; bids until May 20 at office of Board of State Engrs., 213 New Orleans Court Bldg., New Orleans; Frank M. Kerr, Chief State Engr. (See Machinery Wanted.)

La., New Orleans.—Dredging.—A. G. Thomas of New Orleans is lowest bidder and will probably secure contract for dredging 160,000 cu. yds. earth from Bayou Teche.

N. C., Wilmington.—Piers.—Wilmington Terminal Co., Pier 36, North River, New York, received bids May 11 for proposed pier; will soon let contract; 396-ft. structure, 132 ft. wide; partly over water; street to be improved and extended in connection; Atlantic Coast Line Ry. to supply two tracks on inshore side of pier and parallel; green piles to be used for water portion of pier; ground portion, earth filling inside sheet pile retaining walls, with floor on fill; wood framework shed, with corrugated iron siding; offices on second floor, one end; no mechanical fixtures.

Tex., Galveston.—Dock, etc.—Kane Channel & Dock Co., capital stock \$50,000, inceptd. by John J. Kane, Jos. L. Cato and Dan T. Kane; will construct dock, etc., on north shore of Galveston Island.

Virginia.—Dredging.—U. S. Engr. Office, C. W. Kutz, Maj., Engrs., 305 Southern Bldg., Washington, D. C.—Bids until June 5 for dredging in Rappahannock River, Va. (See Machinery Wanted.)

Va., Hampton.—Wharf.—City will have plans and specifications for free wharf at E. Queen St. leading out from Hampton bridge. Address The Mayor.

### MISCELLANEOUS ENTERPRISES

Ala., Birmingham.—Amusement Park.—Amusement Park Co. let contract to Windham Bros. Construction Co. to arrange amusement park; erect grandstand, motion-picture theater, etc.; plans by Reveron & Bailey, Birmingham. Lately noted inceptd., \$4000 capital.)

Ark., Little Rock.—Stock Yards.—Little Rock Stock Yards Co. plans are progressing; organization committee includes H. F. Auton, Otto Siegle, Carl J. Baer (Industrial Commissioner) and C. C. Kirkpatrick, all of Little Rock, and J. R. Alexander, Scotts, Ark.; plans probably ready for announcement in about 60 days. (Lately noted inceptd., capital stock \$50,000.)

Fla., DeLeon Springs.—Shell.—DeLeon Springs Shell Co., Geo. LeFevre, Mgr., will excavate and sell shell; afterward will stock 250-acre tract with hogs. (Lately noted inceptd., \$15,000 capital.)

Fla., Jacksonville.—Laundry.—Independent Laundry Co., capital stock \$50,000, inceptd.; J. W. Wellbrock, Pres.; H. J. Gannon, V.-P.; H. E. Stewart, Secy.-Treas.

Fla., Miami.—Incinerator.—City voted \$25,000 bonds for garbage incinerator; J. W. Watson, Mayor. (Lately noted.)

Fla., St. Petersburg.—Publishing.—Times Publishing Co. let contract E. W. Clark, St. Petersburg, to remodel building and erect additional story, making building 2 stories; size of each floor, 27½x100 ft.; install new Webb press and Linotype machine, etc.; latter to cost \$10,000; lately noted. (See Machinery Wanted.)

Fla., Tampa.—Printing.—Mrs. Julia Friebele let contract Levick & Mobley, Tampa, for 2-story brick building, 100x75 ft., to be occupied by Carl W. Hill Printing Co. and Florida Grower; company will install presses, electric motors, press for color work, engraving plant, etc.; Archt., A. H. Johnson, Tampa.

Ga., Atlanta.—Machinery and Mill Supplies.—Fulton Supply Co., capital stock \$35,000, inceptd. by Geo. Winship, Sr., Geo. Winship, Jr., and Walter M. McDonald.

Ga., Valdosta.—Electric and Gas Fixtures.—Payne Electric Co., capital stock \$2000, inceptd. by T. J. Christie, M. T. Payne and E. L. Turner.

Ky., Louisville.—Taxicabs.—Allen Taxicab Co., capital stock \$2000, inceptd. by Geo. Allen, Pres.; Rolla George, V.-P.; Homer George, Secy.-Treas.

La., Baton Rouge.—Laundry.—Evans Steam Laundry, 215 Florida St., inceptd.; capital \$20,000; W. M. Evans, Pres.-Mgr.; C. L. Garland, V.-P.; Lewis Gottlieb, Secy.; let contract W. R. Miller, 949 N. Blvd., to erect building; one-story foundation; provision for future two-



story addition; placed order for steam equipment.

**Md., Baltimore—Ash-disposal Plant.**—City is considering installation of ash-disposal plant; committee recommends 10 wooden scows, holding 500 yds. each, costing \$40,000; derrick scow costing \$10,000; cableway, grab-bucket and equipment costing \$8000, and incidental equipment costing \$2000; H. K. McCay, City Engr.

**Md., Cumberland—Publishing.**—Cumberland Press, 109 Baltimore St., organized; Chas. W. L. McDermott, Pres.; Francis J. Glick, V. P.; Jno. G. Welbie, Secy. Treas.; leased plant and installed machinery to publish newspaper. (Lately noted inceptd., \$70,000 capital.)

**Md., Williamsport.**—City votes June 1 on \$100,000 bonds to construct electric-light plant and water-works; Wm. Stahl, Burgess.

**Mo., Kansas City—Engraving.**—Miller Engraving Co., capital stock \$5000, inceptd. by M. E. Miller, Chas. H. Hill and John C. Jackson.

**Mo., Kansas City—Grain Elevator.**—Missouri Pacific Ry. Co., J. R. Stephens, Ch. Engr., St. Louis, let contract Stephens Engineering Co., Monadnock Bldg., Chicago, to erect 1,600,000-bu. concrete grain storage addition to Kansas-Missouri elevator; estimated cost \$150,000.

**Mo., North Kansas City—Grain Elevator.**—Chicago, Burlington & Quincy R. R., W. L. Breckinridge, Engr. M. W., Chicago, Ill., will erect addition to Murray grain elevator, increasing capacity to 1,500,000 bus.; construct concrete tanks.

**N. C., Asheville—Laundry.**—Battery Park Hotel Co. will build laundry and clubhouse.

**N. C., Kinston—Publishing.**—Kinston Free Press Co., capital \$25,000, inceptd. by N. J. Rouse, I. F. Taylor, H. E. Moseley and others; publish Kinston Free Press.

**N. C., Lexington—Publishing.**—H. B. Varner, editor of Dispatch, let contract to W. Lee Harbin, Lexington, to erect building to contain newspaper plant, 2 stores, moving-picture theater, etc.; 2 stories; cost \$20,000. (Lately noted.)

**Okla., Muskogee—Printing.**—Tew Printing Co., capital stock \$10,000, inceptd. by M. B. Tew, Frank Tew and Perry Adkins.

**Okla., Oklahoma City—Bathroom Specialties.**—Kay-Essany Specialty Co. organized; B. M. Kahn, Pres.-Mgr.; F. Amerman, V. P.; Nathan Stein, Treas.; will deal in bathroom specialties. (Lately noted inceptd. under Miscellaneous Factories with \$3000 capital.)

**Okla., Tulsa—Publishing.**—Baseball World Publishing Co., capital \$10,000, inceptd. by E. R. Perry, W. D. Guiss and M. Kickerman.

**S. C., Georgetown—Publishing.**—Georgetown Times, capital \$4000, inceptd. by J. B. Steele, E. W. Kaulinski, C. L. Ford and others.

**Tenn., South Pittsburgh—Publishing.**—Statesman-Democrat Publishing Co. is reported to rebuild plant burned at loss of \$2000.

**Tex., Houston—Contracting.**—W. E. Humphreys Co., capital stock \$50,000, inceptd. by W. E. Humphreys, J. B. Humphreys and W. E. Humphreys, Jr.

**Tex., San Antonio—Dairy.**—Mrs. R. C. Daffau purchased 15 acres land on South Loop and contemplates building dairy.

**Tex., Timpson—Laundry.**—Timpson Laundry Co. will build laundry; purchased machinery.

**Tex., Yoakum—Incinerator.**—City let contract at \$2700 to build incinerator. Address The Mayor. (Lately noted voted \$2000 bonds.)

**Va., Lynchburg—Building.**—Home Building & Real Estate Co., W. M. Wayt, Pres.-Mgr., 822 Church St. (lately noted inceptd., capital \$50,000), will erect small houses. (See Machinery Wanted.)

**Va., Norfolk—Incinerator.**—City will build garbage incinerator; W. T. Brooke, City Engr.

**W. Va., Grafton—Tile Decorations.**—Union Novelty Co. contemplates building plant to decorate tile produced by Columbia Tile Co.; the companies plan to affiliate.

**W. Va., Hinton—Transportation.**—Hinton Transportation Co., capital stock \$25,000, inceptd. by C. C. Stanton, E. E. Rose, W. A. Charlton and others.

**W. Va., Wheeling—Laundry.**—Home-Pearl Laundry Co. (main office, 1213 Hoff St.) consolidates Home Steam Laundry and Mendel-Pearl Laundry; will remodel buildings. (Lately noted inceptd. with \$75,000 capital stock by C. H. Duncan and others.)

**W. Va., Wheeling—Hardware.**—T. A. Hoge Hardware Co., capital stock \$75,000, inceptd. by T. A. Hoge, P. R. Hoge, Floyd T. Campbell and others.

## MISCELLANEOUS FACTORIES

**Ala., Mobile—Brewery.**—Mobile Brewery Co. will hold meeting June 15 to vote on increasing capital stock from \$100,000 to \$475,000.

**Fla., Jacksonville—Syrup.**—Alabama Georgia Syrup Co., L. B. Whitfield, Pres., Montgomery, Ala., purchased 2 acres on which to build syrup refinery; erect concrete building for refinery and warehouse; capacity 35,000 bbls. syrup; cost \$10,000. (Lately noted.)

**Fla., Pinellas Park—Syrup Mill.**—Florida Association, Dr. A. B. Davis, V. P. and Gen. Mgr., St. Petersburg, Fla. (northern office, 1914 Cherry St., Philadelphia, Pa.) is installing syrup mill; considering installing can-making machinery; asks prices on tin cans. (See Metal-working Plants and Machinery Wanted.)

**Fla., Tallahassee—Bottling.**—F. C. McDonald, Cuthbert, Ga., will establish Cerro-Cola bottling plant; secured buildings; will remodel and equip; plant cost \$6000.

**Ky., Louisville—Automobile Starters.**—Sampson Engineering Co., capital stock \$350,000, inceptd. by B. N. McGraw, D. A. Caldwell and N. H. Wright; will mfr. electrical starter for automobiles; lease floor in Sneed Architectural Bldg.; reported to erect factory later.

**La., Lake Charles—Turpentine.**—Lutcher & Moore Turpentine Co. let contract to Hayford, Hood & Greenlaw, 311 St. Charles St., New Orleans, to install system of stills and recording thermometer stilling system in all its plants.

**La., Mermentau—Rice.**—Mentau Rice Growers' Mill Co., capital stock \$20,000, organized; probably elect Chas. Duhon as Pres.

**La., Rayville—Bottling, etc.**—Ouachita Coca-Cola Bottling Works of Monroe, La., purchased Rayville Gay-Ola Bottling Works; plan to enlarge plant, mfr. ice cream and candy, and install ice factory.

**Md., Hagerstown—Milk Pails.**—Hagerstown Sanitary Milk Pail Co. (lately noted incorporated) will mfr. metal pails. (See Metal-Working Plants.)

**Md., Lonaconing—Glassware.**—Thos. Dugan of Indiana, Pa.; Sam Bradley, Mose Bear and others of Lonaconing propose organizing company with \$50,000 capital stock to establish glass plant; 2 stories; 100x275 ft.; frame; 12-pot furnace; mfr. table glass, druggists' sundries, etc.

**Miss., Pass Christian—Turpentine.**—Wolf River Co., Gulfport, purchased turpentine plant and leases of J. L. Jones for \$14,500; purchase includes about 12 turpentine tracts and plant at Pass Christian.

**Mo., Kansas City—Electric Device.**—Automatic Electric Light Co., capital stock \$100,000, inceptd. by F. B. Willmont, W. H. Maloney and Wm. F. Warner.

**Mo., St. Louis—Hats.**—Western Hat Mfg. Co., capital stock \$2000, inceptd. by Thos. Crossley, Wm. C. Milks and Fred Stockho, Jr.

**Mo., St. Louis—Signs.**—Nager-Press Sign Co., capital stock \$20,000, inceptd. by Emma Nager, E. Nager, M. C. Fritschle and others.

**Mo., St. Louis—Cheese.**—C. E. Udell Cheese Co., capital stock \$30,000, inceptd. by C. E. Udell, L. H. Udell and John F. Albert.

**Mo., St. Louis—Fireworks.**—North American Display Fireworks Co., capital stock \$2000, inceptd. by J. Saunders Gordon, Edward W. Labitzke and Eugene H. Argert.

**Mo., St. Louis—Shoe Polish, etc.**—Boston (Mass.) company will build branch factory for shoe polish and rubber cement for shoe manufacturers; let contract Geo. R. Cummings, Jr., St. Louis, to erect 1-story 154x144-ft. building costing \$25,000.

**Mo., St. Louis—Automobile Tire Cushions.**—Panama Equipment Co., 3912 Washington Blvd. (lately noted inceptd., capital stock \$6000) organized; J. F. Schneider, Pres.; Herman Herfurth, V. P.; G. G. Geise, Secy. Treas.; marketing punctureless cushions for automobile tires.

**N. C., Gastonia—Fire Appliances.**—American Fire Appliance Co., capital \$50,000, incorporated by J. L. Gray, J. H. Separk and M. P. Henderson.

**Okla., Boley—Boley Mfg. Co.**, capital stock \$5000, inceptd. by H. S. Smith, G. P. Smith and D. D. Davis.

**Okla., Oklahoma City—Vending Machines.**—Jacobs Vending Machine Co., capital \$50,000, inceptd. by J. R. Jacobs, John W. Nicely and S. Howell.

**Tenn., Good Spring—Rice.**—J. L. Gibson will build rice mill.

**Tenn., Knoxville—Automobiles.**—Citizens' Auto Co., capital \$5000, inceptd. by Leroy D.

Harth, Fred J. Baumann, J. B. Marcus and others.

**Tenn., Memphis—Medicine.**—Breeden Medicine Co., Chattanooga, will establish plant.

**Tenn., Nashville—Tires.**—Nashville Tire Co., capital stock \$10,000, inceptd. by V. Floyd Self, John C. Schoffner, W. H. Blackwood and others.

**Tenn., Nashville—Coffee Roasting, etc.**—Fletcher & Wilson Coffee Co., 10-11 Cummins Station, purchased building for \$27,500; will enlarge, erect additional story and remodel, making structure 5 stories, 250x50 ft.; install coffee roasting and peanut recleaning plants.

**Tex., Dallas—Newspaper Vending Machines.**—Southern Newspaper Vending Machine Co. of Texas, capital stock \$10,000, incorporated by M. S. Florer, W. J. Cameron and R. L. Ellis.

**Tex., Dallas—Belting.**—Moloney Belting Co. of Chicago will establish branch plant at 1713-1715 Griffin St.; J. M. Farrell, Mgr.

**Tex., Fort Worth—Coffman Mfg. Co.**, capital stock \$10,000, inceptd. by J. M. Dawson, Rolla McConnell and John C. Miller.

**Tex., Port Arthur—Paraffine Plant.**—Gulf Refining Co. will construct paraffine plant; install boilers, stills, tanks and special machinery; construct various buildings; plant to cover 35 acres; plans, etc., by company's engineering corps; construction, including building of stills and tanks, mainly by company's force.

**Tex., San Saba—Creamery.**—San Saba Creamery Co. organized; will build creamery.

**Tex., Sweetwater—Bottling.**—Sweetwater Bottling Co., capital stock \$3000, inceptd. by W. T. McCoy, T. L. Hughes and J. McAllister, Jr.

**Va., Lynchburg—Bakery.**—Sta-Kleen Bakery increased capital stock from \$10,000 to \$20,000.

**Va., Fort Monroe—Bakery.**—Office of H. L. Pettus, Maj. Quartermaster Corps, Fort Monroe, Va.—Bids until June 2 to make alterations to post bakery. Information on application.

**Va., Fredericksburg—Creamery.**—Farmers' Creamery Co., R. W. Harris, Secy., will soon let contract to erect creamery; 40x60 ft.; Philip N. Stern, Archt., Fredericksburg. (Secretary's name lately incorrectly noted as R. W. Haines.)

**Va., Suffolk—Holladay Detecto Co.**, capital stock \$25,000, inceptd.; J. E. B. Holladay, Pres.; M. K. Kendrick, Secy.

**W. Va., Grafton—Glass.**—East End Glass Co. will rebuild plant burned at loss of \$30,000.

## MOTORS AND GARAGES

**Ala., Birmingham—Garage.**—Mrs. R. L. Marks let contract O. D. Medlock, Birmingham, to erect garage; 40x100 ft.; Archt., Wm. T. Warren. (Lately noted.)

**Fla., Fort Myers—Garage.**—H. E. Heitman is having plans prepared by F. J. Kennard, Tampa, Fla., for garage; 1 story; 60x100 ft.; ordinary construction.

**Ga., Atlanta—Automobile Assembling Plant.**—Ford Motor Co., Detroit, Mich., let contract Irwin & Leighton, 126 N. 12th St., Philadelphia, Pa., to erect lately-noted assembling plant at Ponce de Leon Ave. and Southern Ry.; plans by John Graham of Ford Motor Co.; building to cost about \$275,000; 4 floors and basement; 142x300 ft.

**La., New Orleans—Cyclecars.**—Southern Cyclecar Mfg. Co., capital stock \$10,000, inceptd.

**S. C., Charleston—Automobiles.**—Motor Transport Co., capital \$2000, inceptd. by M. S. Pundt and C. K. Williams.

**Tex., Brownwood—Garage.**—Ed G. Hall will build garage.

## RAILWAY SHOPS, TERMINALS, ROUNDHOUSES, ETC.

**Tex., Galveston—Gulf, Colorado & Santa Fe Ry.**, F. Merritt, Ch. Engr., Galveston, Tex., includes in annual budget following expenditures: \$74,600, water and fuel stations; \$1140, shops, engine-houses and turntables; \$40,450, stations and fixtures; \$10,410, terminal yards; \$54,764, bridges, trestles and culverts; \$7150, sidings and spur tracks; \$2660, protection of banks and drainage.

## ROAD AND STREET WORK

**Ala., Birmingham.**—City Com. approved ordinance providing for paving portion of 3d Ave.; cost \$20,000; Julian Kendrick, City Engr.

**Ala., Birmingham.**—City will pave 25th St. from 1st to 8th Aves.; bids on sheet asphalt (open specifications), asphaltic concrete,

vitrified brick and bitulithic; work includes 14,400 sq. yds. paving on roadway, 1000 yds. concrete gutter, 460 yds. cement sidewalks, 200 yds. brick alley paving, 3100 lin. ft. curb reset with drainage pipes and inlets; bids until May 19; Julian Kendrick, City Engr. (See Machinery Wanted.)

**Ala., Florence.**—City let contract McGarry Contracting Co., Florence, to construct 2600 ft. water-bound macadam roadway with concrete curb and gutter and storm sewers; Consult. Engrs., Lund & Hill, Little Rock, Ark.; J. B. White, City Clerk. (Call for bids lately noted.)

**Ala., Haynesville.**—Lowndes county (lately noted voting bonds) has \$120,000 available to grade and surface roads; date of opening bids not set; J. M. Garrett, Engr., Montgomery, Ala.

**Ala., Tuskegee.**—Macon County Commrs. will grade about 2 mi. road, machining about 7 additional mi. and surfacing 4 mi. with top soil or sand clay; bids until June 1; W. S. Keller, State Highway Engr. (See Machinery Wanted.)

**Ark., Little Rock.**—City will grade, drain, gutter, curb and construct sidewalks in Street Improvement Dist. No. 229, Denison and Barton Sts., from Markham to 2d St.; bids until May 29; H. Levinson, Supt. Public Works. (See Machinery Wanted.)

**Ark., Russellville.**—Pope County is considering \$150,000 bond issue to construct macadam road from Russellville to Dover, Scottsville and other cities; distance 60 mi. Address County Commrs.

**Ark., Van Buren.**—Mr. Tallay of Ozark, Ark., is reported to have contract at \$20,000 to construct 3½ mi. road from Alma to Kibler.

**Fla., Leesburg.**—Rufus Vinsant, Ashland, Ky., and others are reported to construct road on Stone Mountain. (See Miscellaneous Structures under Buildings Proposed.)

**Fla., Miami.**—City will pave 1st St., Prout Ave. to Ave. E.; 9th St., Ave. G to North River Drive; 15th St., Ave. H to I; J. W. Watson, Mayor.

**Fla., Miami.**—City voted \$60,000 bonds for street and sidewalk improvements; J. W. Watson, Mayor. (Lately noted.)

**Fla., St. Augustine.**—City Council voted to pave Bay, Treasury, Ribera and Sevilla Sts. and Central Ave. Address The Mayor.

**Fla., St. Petersburg.**—City will pave Lee St., First Ave. North and Kenyon St. with brick; Address The Mayor.

**Fla., St. Petersburg.**—City will pave Lee St., 1st Ave. North and Kenyon St. with brick; M. W. Spencer, City Engr.

**Fla., Tallahassee.**—Leon County Commrs. will lay cement sidewalks on Monroe St. from Courthouse Sq. with walk to main entrance of building; 4 in. thick, 3 in. of concrete base; bids until June 6; Henry T. Felkel, Clerk. (See Machinery Wanted.)

**Fla., Tampa.**—Hillsborough County, W. P. Culbreath, Clerk, will pave with concrete 1 mi. road between eastern limits of Port Tampa City and Ballast Point; also for 1 mi. No. 1 vitrified brick paving on same road; bids until June 4. (See Machinery Wanted.)

**Ga., Albany.**—City let contract John E. MacMillan, Albany, to construct 10,000 sq. yds. sidewalk; R. J. Edgerly, City Engr.

**Ga., Decatur.**—R. J. Freeman, Commr. of Roads and Revenues of DeKalb County, and Atlanta Development Co. let contract R. M. Hudson, Atlanta, for grading, culvert work and cherting of Blvd. DeKalb; width 80 ft.

**Ga., Macon.**—City will pave Bay St. from Broadway to east side new Bay St. underpass with concrete. Address The Mayor.

**Ky., Lexington.**—City let contract F. T. Justice & Co., Lexington, to construct concrete curb and gutter on Indiana Ave. from Main to Russell St.; J. E. Cassidy, Mayor.

**Ky., Vanceburg.**—Lewis County will vote on \$150,000 bonds to construct roads. Address The Mayor.

**Md., Baltimore.**—City let contract Baltimore Asphalt Block & Tile Co., Monroe and Lorman Sts., at \$166,571.30 to pave 27 streets in Annex with sheet asphalt; Contract No. 132. (Call for bids lately noted.)

**Md., Baltimore.**—State Roads Com., Garrett Bldg., let contract Luck Construction Co., Roanoke, Va., at \$31,000 to construct road from Kingsville to Harford county line, 2.25 mi., macadam; H. B. Spraul, Peckskill, N. Y., at \$44,000 to pave section Post Rd. from Charlestown Rd. to North East, 4.33 mi., macadam.

**Md., Baltimore.**—City let contract Austin & Bennett Co. to lay concrete walks at Bayview Asylum, and to David M. Andrew Co., Mount Vernon Ave. and 26th St., for curbing and guttering. (Call for bids lately noted.)

Md., Baltimore.—City will grade, curb and pave with sheet asphalt, vitrified block and scoria block, on concrete base, on Baltimore and Liberty Sts. and Fremont Ave.; contract \$8; 8750 sq. yds. sheet asphalt, 820 sq. yds. vitrified block and 3880 sq. yds. scoria block; bids until May 27; R. Keith Compton, Chrm. and Cons. Engr., Paving Com., City Hall. (See Machinery Wanted.)

Md., Baltimore.—Maryland State Roads Com., O. E. Weller, Chrm., 601 Garrett Bldg., will construct 6 sections State highway, about 26.28 mi., in Allegany, Anne Arundel, Kent, Queen Anne's and Washington counties; bids until May 26. (See Machinery Wanted.)

Miss., Brandon.—Rankin County votes May 30 on \$50,000 bonds to construct roads. Address County Commrs.

Miss., Forest.—Supvrs. Dist. No. 1, Scott county, W. A. Turner, Secy. Highway Commissioners, will improve about 6 mi. roads; grade, bridge and surface; bids until June 1; Xavier A. Kramer, Magnolia, Miss., Engr. (See Machinery Wanted.)

Miss., Houston.—Beat 1, Chickasaw County, J. Rice Williams, Chrm., receives bids until June 8 for grading and graveling 18½ mi. road; Stein & Harbert, Engrs., Indianola, Miss.; lately noted. (See Machinery, etc., Wanted.)

N. C., Mount Airy.—City will construct 2 mi. tarvia street; Roy Brown in charge.

N. C., Morganton.—City, R. W. Pipkin, Town Mgr., will construct 3600 sq. yds. concrete paving and 2400 lin. ft. concrete curbing on Green St. between Union and Concord Sts.; also 3600 sq. yds. paving, concrete foundation, bituminous top, on Union St. between Green and King Sts.; bids until June 1. (See Machinery Wanted.)

N. C., Roxboro.—Person County defeated \$150,000 bonds to construct roads; E. B. Reade, Chrm. County Commrs. (Lately noted.)

N. C., Shelby.—No. 6 Highway Com. let contract Plot Constr. Co. to construct road from Cleveland Springs to Buffalo Creek.

N. C., Winston-Salem.—Central Terrace Development Co. let contract C. M. Thomas & Co. to construct concrete sidewalks through Central Terrace property.

Okl., Marietta.—City let contract Western Paving Co., Oklahoma City, Okla., for 20,000 sq. yds. vibrolithic concrete paving at \$2.13 per sq. yd.; Benham Engineering Co., Oklahoma City, Engrs., will supervise construction. (Bids lately noted.)

Okl., Poteau.—LeFlore County Commrs. contemplate issuing \$154,000 bonds to construct roads in 6 townships; individual issues range from \$16,000 to \$35,000.

S. C., Bennettsville.—City let contract J. R. Steele, Bennettsville, to lay 10,000 sq. yds. 6-ft. concrete sidewalks. (Lately noted.)

Tenn., Lewisburg.—City voted \$30,000 bonds to improve streets. Address The Mayor. (Lately noted.)

Tenn., Wartburg.—Morgan County voted \$275,000 bonds to construct roads; address County Commrs. (Lately noted.)

Tex., Austin.—Travis County paid tax levy to improve back land roads. Address County Commrs.

Tex., Austin.—City let contract Wallace Miller to construct cement sidewalks and curbing on W. 22d St.

Tex., Austin.—Government appropriated \$80,000 for highway from Austin, in Travis county, through Hays, Comal and a corner of Guadalupe counties, to San Antonio, in Bexar county; 71.6 mi.; Travis, Comal, Hays and Bexar counties contribute \$160,000, making aggregate \$240,000; mi. in each county as follows: Travis, 11.2 mi.; Hays, 23.3 mi.; Comal, 20.4 mi.; Guadalupe, 3.3 mi., and Bexar, 13.4 mi.; reinforced concrete culverts and bridges; vitrified clay pipe or ingot iron pipe with concrete headwalls; replace wooden culverts and bridges with permanent structures; recommendations include road grade 24 ft. wide between shoulders and surfaced roadway 15 ft. wide, etc.; detailed report made by J. R. Shidler, Highway Engr. Inspector.

Tex., Batesville.—Zavalla county voted \$20,000 bonds for road construction; precinct No. 4 voted \$10,000 bonds to construct roads. Address County Commrs. (Lately noted.)

Tex., Bonham.—Fannin county voted \$250,000 bonds to construct roads. Address County Commrs. (Bond issue lately noted defeated at recent election.)

Tex., Cameron.—J. C. Feld Engineering Co., Feld Bldg., Denison, Tex., will make survey for highway system; plans, estimates, specifications, etc., complete about July 1, when bids will be invited; \$150,000 available.

Tex., Corsicana.—City, J. S. Halbert, Mayor, will expend \$40,000 to pave 2 or 3 mi. streets; Geo. A. Duren, Engr.

Tex., Cotulla.—LeSalle county will vote on \$45,000 bonds for road and bridge construction. Address County Commrs.

Tex., Dallas.—Dallas County Commrs. let contract Cullom & Bayousett at \$60,749.96 to pave Dallas-Oak Cliff viaduct with wood blocks, except Oak Cliff approaches, which will be paved with bituminous concrete; J. F. Witt, County Engr. (Call for bids lately noted.)

Tex., Denison.—City votes June 4 on \$20,000 bonds to improve streets. Address The Mayor. (Lately noted.)

Tex., Denton.—Road Dist. No. 2, Denton county, votes July 18 on \$300,000 bonds for road construction. Address County Commrs.

Tex., Denton.—Mustang Precinct of Denton county voted \$22,500 bonds to construct roads. Address County Commrs. (Lately noted.)

Tex., Floresville.—Road Dist. No. 1 of Wilson county votes June 23 on \$60,000 bonds to construct roads. Address County Commrs.

Tex., Harlingen.—City, H. D. Seago, Clerk, will complete sidewalks and curbs in Improvement Dist. No. 1; 182,000 sq. ft. sidewalks, 21,350 lin. ft. curbing and 9500 lin. ft. curb and gutter; bids until June 15; L. S. Ross, Mayor. (See Machinery Wanted.)

Tex., Houston.—Harris County Commrs. let contract Suderman & Dolson at \$3107.50 to improve 2½ mi. Brunner St., and Texas Grading Co. at \$6700 to improve Richmond road.

Tex., Houston.—Harris county, H. L. Washburn, Auditor, receives bids until June 1 for gravel for base 4½ mi. Kuykendahl Rd.; shell for topping same; hauling, rolling and preparation of subgrade; prices on shell and gravel f. o. b. cars as per plans and specifications in office County Engrs. (See Machinery Wanted.)

Tex., Houston.—Harris county, H. L. Washburn, Auditor, receives bids until May 25 for hauling and placing 8500 cu. yds. gravel from designated points for paving 6½ mi. Alameda Rd. and for preparing subgrade thereof as per plans and specifications in office County Engrs. (See Machinery Wanted.)

Tex., Houston.—Harris County Commrs. let contract W. S. Hipp at \$13,751.25 to construct Washington Rd.; Davis & Hughes at \$9880 Crosby and Dayton Rd. with shell; W. A. Scott at \$7026 Harrisburg Main St. cut-off road (Griggs Rd.) with gravel; Texas Grading Co. at \$1475 Baker St. Rd. with gravel. (Call for bids lately noted.)

Tex., Kaufman.—Justice Precinct No. 1 of Kaufman county votes June 20 on \$200,000 bonds to construct roads. Address County Commrs. (Bonds lately noted defeated in recent election.)

Tex., Mart.—City will pave Texas Ave. from west line of Griswell St. to west line of International & Great Northern Ry.; Pearl St. from south line of McClennan Ave. to north line Limestone Ave.; about 17,400 sq. yds. pavement and 4500 ft. combined curb and gutter; bids until June 1; Lake Robertson, City Engr. (See Machinery Wanted.)

Tex., McKinney.—City, Sims Cameron, Secretary, receives bids until May 26 for work in Improvement Dist. No. 1; 25,438 sq. yds. paving, 12,166 cu. yds. excavation, 14,846 lin. ft. curb, and curb and gutter catch-basins, drains, etc.; Chas. Schultz, City Engr. (See Machinery Wanted.)

Tex., Oakville.—Live Oak County Commrs. issued \$25,000 bonds to improve roads.

Tex., Uvalde.—Uvalde county will vote June 20 on previously-noted \$180,000 bonds for road construction. Address County Judge, Uvalde.

Tex., Waco.—McLennan County, W. T. Lockwood, Auditor, receives bids until June 15 for 5 separate road contracts and 5 separate bridge and culvert contracts in Road Dist. No. 2; road contracts include 185 mi. various types of construction as follows: Brick, 1-12 mi.; concrete, 2½ mi.; bituminous macadam, 70 mi.; water-bound macadam, oiled surface, 18 mi.; gravel, 81 mi.; sand-clay, 12 mi.; bridges and culverts as follows: Steel I-beams encased in concrete, reinforced concrete boxes, corrugated pipe and vitrified pipe, amounts as designated on detail plans in office of R. J. Windrow, County Engr. (See Machinery Wanted.)

Tex., Wichita Falls.—Comms. Precinct No. 4 of Wichita County (including Electra) votes July 7 on \$125,000 road bonds. Address County Commrs.

Va., Fort Myer.—Quartermaster, War Dept., U. S. A., will reconstruct heavy traffic road; bids until June 1; information on application. (See Machinery Wanted.)

Va., Holland.—Town will construct 2 mi. macadam road. Address Town Clerk.

Va., Norfolk.—Board of Control let contract L. Lawson for 1100 sq. yds. bituminous concrete paving on 48th St.; W. T. Brooke, City Engr. (Lately noted.)

Va., North Richmond, P. O. Richmond.—Town votes May 29 on \$85,000 bonds for street improvements, water-works, water supply, sewer improvements and equipment for fire protection; W. S. Pettit, Mayor. (Lately noted.)

Va., Portsmouth.—Norfolk County Supvrs. will construct boulevard connecting Jamestown and Ocean View Bldgs.

W. Va., West Union.—City issued \$62,000 grading, paving, sewer, water and bridge bonds. Address The Mayor.

## SEWER CONSTRUCTION

Ala., Birmingham.—City will construct sanitary sewers in Annesburg Dist., about 1 mi.; cost \$2100; also 4 mi. sanitary sewers in Owenton; cost \$11,000; let contract soon; Julian Kendrick, City Engr.

Ala., Birmingham.—City will construct sanitary sewers in East Lake, about 4 mi.; cost \$16,000; bids let about June 2; Julian Kendrick, City Engr. (See Machinery Wanted.)

Fla., Bradentown.—City votes June 9 on \$10,000 additional bonds to construct and maintain storm sewers and drains; C. A. Birney, Mayor.

Fla., Lakeland.—City will vote on \$20,000 bonds to extend sewers. Address The Mayor. (See Water-Works.)

Fla., Miami.—City voted \$90,000 bonds for sewers; J. W. Watson, Mayor. (Lately noted.)

Ga., Vidalia.—City will arrange to construct sewers. S. B. Meadows, Mayor.

Ky., Lexington.—City let contract Central Construction Co., Lexington, to construct sanitary sewer on Pratt Ave.; about 575 ft.; J. E. Cassidy, Mayor. (Call for bids lately noted.)

Ky., Lexington.—City let contract Carey-Reed Co., Lexington, to construct sanitary sewer on Pine St. from Merino to High; J. E. Cassidy, Mayor.

Md., Baltimore.—City let Sanitary Contract No. 134 to Smith & Ruggles, 4 W. 26th St., Baltimore, at \$79,468.35; 25,350 lin. ft. vitrified pipe sewer, 8 to 18 in.; 17,700 lin. ft. vitrified pipe house connections. (Call for bids lately noted.)

Md., Towson.—Baltimore county defeated \$1,000,000 bond issue for sewers. Address County Commrs. (Lately noted.)

Mo., St. Louis.—Chas. E. Van Wormer, Springfield, Mo., is lowest bidder at \$92,323 to construct Upper Alton sewer.

Okl., Sulphur.—City let contract J. O. Severns of Oklahoma City at \$48,535 to construct sewers; 54,700 ft. 6-in. pipe, 3900 ft. 8-in. pipe, 118 manholes and 1160 cu. yds. rock excavation; Consult. Engr., H. V. Hinkle, 1018 Harvey St., Oklahoma City. (Call for bids lately noted.)

N. C., West Asheville, P. O. Asheville.—City let contract J. C. Fairry, Orangeburg, S. C., at \$25,997.71 to construct sewer and water systems; 13,200 ft. 8-in. sewers; Chas. E. Waddell, Consult. Engr., 78 Patton Ave., Asheville. (Call for bids lately noted.)

Okl., Atoka.—City is reported to have let contract M. D. Michael, Durant, Okla., to construct sanitary sewers; estimated cost \$20,000; B. C. McCleary, City Engr.

Okl., Collinsville.—City, Wm. M. Gresham, Clerk, lets contract May 25 to construct lately-noted 4120 ft. Nos. 8 and 9 sewers; estimated cost \$4500; also ask bids in about 30 days to construct sewage-disposal plant, estimated to cost about \$4000; Imhoff tank, contact bed; plans and specifications by W. F. Keller, Independence, Kans.; bonds lately noted. (See Machinery Wanted.)

Tenn., Nashville.—City let contract Stone, Graham & Co. at \$2770.20 to construct brick trunk sewer near 25th Ave.; H. E. Howse, Mayor. (Lately noted.)

Tex., Teague.—Company organized with J. W. Philp, Prest.; W. R. Boyd, Jr., V.-P.; R. H. Kelley, Secy.-Treas.; to construct sewer system; let contract, Engr. E. L. Dalton, Dallas, to lay 9 mi. pipe. (Franchise lately noted granted to Philp, Boyd & Co., Dallas.)

Va., North Richmond, P. O. Richmond.—Town votes May 29 on \$85,000 bonds for sewer improvements. W. S. Pettit, Mayor. (See Road and Street Work.)

W. Va., West Union.—City issued \$62,000 sewer, water, bridge, grading and paving bonds. Address The Mayor.

## TELEPHONE SYSTEMS

Fla., Lakeland.—Peninsular Telephone Co. is reported to install automatic telephone system.

Mo., Tipton.—Citizens' Telephone Co. purchased A. T. Adams' telephone system for \$9400.

Okl., Alva.—Cora Telephone Co., capital stock \$8000, inceptd. by Walter G. Howell and Dudley McMurphy of Alva, Geo. W. Clapp and B. C. Smithson of Whitehorse, Okla.

Tenn., McMinnville.—Center Town Home Telephone Co., L. B. Gilbert, Prest., R. F. D. No. 1, will construct 100 metallic lines, longest 6 mi.; lately noted as Home Telephone Co., inceptd. with \$5000 capital. (See Machinery Wanted.)

Tex., Austin.—Southwest Telephone & Telegraph Co. is reported to erect building at 10th St. and Congress Ave.

## TEXTILE MILLS

N. C., Denton.—Knit Goods.—Denton Knitting Mill Co. organized with \$10,000 capital stock.

N. C., East Durham.—Hosiery.—Louise Knitting Mills Co. organized; W. T. Cole, Prest.; J. H. Stone, V.-P.; E. C. Stone, Secy.-Treas.; installed 50 knitting machines and will add 30 machines; electric power. (Lately noted inceptd. with \$50,000 capital stock.)

N. C., Greensboro.—Cotton Flannels.—Revolution Cotton Mills proceeding with construction of addition previously reported; let all building and machinery contracts; final plans call for 4-story 303x130-ft. finishing building, with 50x26-ft. office attached, 1-story-and-basement 500x130-ft. weaving mill, 2-story 55x130-ft. carding and spinning mill, 1-story 100x55-ft. cotton opening room and 1-story 500x100-ft. storage warehouse; machinery installation will include 40,000 spindles, 1100 looms, 700 cards, etc.; not decided to build power-house this year; if decide affirmatively, will construct steam-driven plant of 4000 kilowatts capacity; C. R. Makepeace & Co., Archts.-Engrs., Providence, R. I. (Lately noted.)

N. C., Halifax.—Hosiery.—Halifax Hosiery Mills organized by Archie McDowell, Prest. of Scotland Neck Cotton Mills, Scotland Neck, N. C.; will instal 40 knitters.

N. C., Marion.—Cotton Cloth.—Cinchfield Mfg. Co. let contract T. C. Thompson & Bros., Charlotte, N. C., to erect cotton mill buildings costing \$150,000; 3 stories, 350x123-ft. main structure and 100x50-ft. boiler and engine-room; previously let contracts for machinery, including 20,000 spindles and 600 looms; rope-drive power plant to cost \$25,000; J. E. Sirrine, Archt.-Engr., Greenville, S. C. (Lately noted organized with \$500,000 capital stock, etc.)

N. C., Morganton.—Hosiery.—F. S. Drury will instal hosiery knitting machinery; has building and power.

N. C., Newton.—Hosiery.—Fidelity Hosiery Mills will add 21 knitting machines, increasing daily production about 100 doz. prs. hosiery; has let contract.

S. C., Goldville.—Cotton Goods.—Banna Mfg. Co. (lately noted increasing capital stock from \$225,000 to \$325,000) will make improvements; has let contracts to erect 25x144-ft. addition to mill, 10 frame houses for operatives and make other changes to present buildings; cost about \$10,000; install 4096 additional spindles and 96 additional looms; machinery to cost about \$30,000; orders placed; Shand Engineering Co., Columbia, S. C., Engr.-Archt.

S. C., Landrum.—Damask.—Shamrock Damask Mills organized with \$20,000 capital stock; H. L. Spears, Prest.; Grey B. Hampton, V.-P.; J. R. Mallory, Treas.-Mgr.; will erect 100x66-ft. mill-construction building costing about \$3000; install 20 looms, belt drive electrical power equipment, etc. (all purchased), costing about \$12,000; daily capacity 1000 yds. damask. (Lately noted inceptd. under Spartanburg.)

Va., Williamsburg.—Underwear, etc.—Bryant Timber Co., R. M. Bryant, Secy., Franklin, Va., purchased Williamsburg Knitting Mills; will enlarge and improve; build warehouse, add new machinery, install 100 H. P. direct-connected electric generator for power and light, enlarge compressor air pumping plant, etc.; plans daily capacity 1000 doz. underwear, etc.

## WATER-POWER DEVELOPMENTS

Ala., Mobile.—Mobile Country Club will construct dam across lake; generate electricity for club buildings, grounds and cottages.



## WATER-WORKS

Ala., Ozark.—Ozark Gin & Milling Co. is sinking 4-in. deep well; will need air compressor. (See Machinery Wanted.)

Fla., Avon Park.—Town granted franchise L. O. Feagin to construct water-works and electric-light and power plant. (See Electric Plants.)

Fla., Bradentown.—City will vote June 9 on \$30,000 additional bonds to construct and maintain water-works. C. A. Birney, Mayor.

Fla., Delray.—City will vote on bonds for water-works and electric-light plant. Address The Mayor.

Fla., Gulfport.—F. J. Davenport and others petitioned City Council for franchises for water, electric-light and gas plants.

Fla., Lakeland.—City will vote on \$70,000 bonds for light and water plant, \$25,000 for extension of light and water lines, \$30,000 for extension of sewers and \$15,000 for improvement of fire department. Address The Mayor.

Fla., Leesburg.—Rufus Vinsant, Ashland, Ky., and others are reported to construct water-works on Stone Mountain. (See Miscellaneous Structures under Buildings Proposed.)

Fla., Tampa.—Purity Springs Water Co., corner Carey Ave. and Morgan St. (lately noted authorized by County Commrs. to construct water system), operates completed plant; has 30,000-gal. tank at spring and 7-mi. 6-in. pipe to city.

Fla., Winter Haven.—Winter Haven Water, Ice & Light Co., W. F. Boyd, Mgr., contemplates installing 300 H. P. engine, 1 mi. 8-in. cast-iron water pipe, 2 6-in. pumps and additions to electric lines; all machinery motor-driven.

Ga., Butler.—City votes June 13 on \$12,000 bonds to construct water-works. Address The Mayor.

Ga., Lagrange.—City purchased water-works from American Pipe & Construction Co.; contemplates improvements; will expend \$150,000 on improvements and extensions; 2,500,000 gals. capacity; construct concrete reservoir; Jas. Nisbet Hazelhurst, Atlanta, Ga., is preparing plans; date of opening bids not determined.

Ga., Macon.—City will lay 4000 ft. 6-in. water mains and 500 to 1000 ft. 8-in. pipe on Bay, Gilmore, Hammond and Turpin Sts.; place 6 or 8 fire hydrants; purchased piping, etc. Address The Mayor.

Ga., Tifton.—City voted \$17,000 bonds to extend and improve water-works. Address The Mayor. (Lately noted.)

Ky., Seabree.—City, C. H. Ramsey, Mayor, voted bonds for previously-noted water-works construction; now having plans and specifications prepared; contemplates letting contract for material about June 15.

Md., Williamsport.—City votes June 1 on \$40,000 bonds to construct water-works and electric-light plant; Wm. Stahl, Burgess

Mo., Butler.—City votes June 9 on \$75,000 water-works bonds; H. E. Cook, Mayor.

N. C., West Asheville.—P. O. Asheville.—City let contract J. C. Fahey, Orangeburg, S. C., at \$25,997.71 to construct water and sewer systems; 27,600 ft. cast-iron and 11,500 ft. galvanized water pipe; Chas. E. Waddell, Consult. Engr., 78 Patton Ave., Asheville, (Call for bids lately noted.)

Tenn., Halls.—City will construct concrete reservoir, 100,000 gals. capacity; lay 3 mi. 4-in. and 6-in. mains, install 26 hydrants, 2 6-in. valves, 10 4-in. valves with boxes, and 150 H. P. boiler; above quantities approximate; bids until June 1; R. C. Huston, Consult. Engr., Exchange Bldg., Memphis, Tenn.; B. M. Archer, Mayor; lately noted. (See Machinery Wanted.)

Tex., Aspermont.—City voted \$30,000 bonds to construct water-works. Address The Mayor.

Tex., Beaumont.—City will improve water-works; separate bids as follows: Furnishing material and labor and constructing water-works canal and improvements; furnishing material and labor and constructing concrete settling basin, concrete construction for filters, brick filter-house, etc.; furnishing material and equipment and erecting six 500,000-gal. mechanical filter units; bids until June 2; Burns & McDonnell, Consult. Engr., 821 Scarritt Bldg., Kansas City, Mo. (See Machinery Wanted.)

Tex., Bryan.—City let contract Fred Standard of League City, Tex., to drill 8-in. well, 150 to 200 ft. deep; supply city with water; install electric pump.

Tex., Corpus Christi.—Fitch & Nix plan to construct dam of steel sheet piling across Nueces River, and reservoir to have holding capacity 465,000,000 gals. of water for 50,000 population; lately noted. (See Irrigation Systems.)

Tex., Denison.—City votes June 4 on \$35,000 bonds to build filtration plant. Address The Mayor. (Lately noted.)

Tex., Mineola.—City, lately noted contemplating water-works construction, is considering purchase of privately-owned plant; \$25,000 to be expended; bonds not yet approved; engineer, Fountain-Shaw Engineering Co., College Station, Tex.

Tex., Galveston.—Gulf, Colorado & Santa Fe Ry., F. Merritt, Ch. Engr., Galveston, Tex., includes in annual budget appropriation of \$74,600 for water and fuel stations. (See Railway Shops, Terminals, Round-houses, etc.)

Tex., San Antonio.—Government will sink and case 6-in. tubular deep well on old target range about 4 mi. from San Antonio; bids until May 22; information on application to Constructing Quartermaster, Fort Sam Houston, Tex. (See Machinery Wanted.)

Tex., San Augustine.—City will replace wooden water mains with iron pipe. Address The Mayor.

Tex., Sweetwater.—City let contract F. H. Mitchell, Midland, Tex., to construct dam. (Lately noted engaged Cooke & Harrison, Engrs., Southwestern Life Bldg., Dallas, Tex., to prepare plans and specifications and superintend construction water-works estimated to cost \$250,000.)

Tex., Willis Point.—City voted \$24,000 bonds to construct water-works. Address The Mayor.

Va., North Richmond, P. O. Richmond.—Town votes May 29 on \$55,000 bonds for water-works, water supply, etc.; W. S. Pettit, Mayor. (See Road and Street Work.)

W. Va., West Union.—City issued \$62,000 water, sewer, bridge, grading and paving bonds. Address The Mayor.

## WOODWORKING PLANTS

Ark., Wilson.—Shooks and Slats.—Kansas City Shook & Mfg. Co. Incptd.; capital stock \$50,000; A. B. H. McGee, Prest.; L. H. Fox, first V.-P., both of Kansas City, Kans.; R. E. Lee, also V.-P.; J. C. Cullom, Secy.-Treas.; let contract F. E. Griffin, Wilson, to erect 15x168-ft. \$10,000 mill-construction building; plans by Hanker & Cairns, Memphis, Tenn.; install equipment to mfr. box shoos and trunk slats; machinery mainly purchased; daily capacity 35,000 ft. (See Machinery Wanted.)

Ky., Winchester.—Wheel Rims.—Geo. E. Tomlinson let contract to erect lately-noted 96x122-ft. two-story addition; machinery partially installed; will purchase rim-finishing machinery, etc., including boiler, engine, generator and motors; mfr. oak and hickory wagon, buggy and automobile, agricultural bent rims; 500 sets daily. (See Machinery Wanted.)

Va., Windsor — Staves. — A. E. Kruse, Waverly, Va., will rebuild plant reported burned; location, Isle of Wight county, 2 mi. from Windsor; install stove-mill equipment, cost \$2000; daily capacity 15,000 keg staves. (See Machinery Wanted.)

W. Va., Westmoreland, P. O. Huntington.—Interior Finishings.—National Interior Finish Co. (previously noted to establish plant) organized with H. C. Warth, Prest.; Fred W. Castle, Secy.-Treas.; E. M. Byrne, Jr., Mgr., Box 395; P. W. Castle, Contr., Paintsville, Ky., is proceeding with erection of buildings, which include 90x200-ft. main building, 78x150-ft. kilns and 24x36-ft. boiler and engine room; fireproof, with composition roof; Archt., G. A. Ross, Cincinnati; Constr. Engr., John Tipton, Catlettsburg, Ky.; mfr. interior finish and floorings of oak, chestnut and poplar; open machinery bids June 20; woodworking machinery previously noted purchased. (See Machinery Wanted.)

## FIRE DAMAGE

Ala., Bay Minette.—Ellis Stevens' residence; loss \$5000.

Ala., Birmingham.—Warehouse owned by E. W. Rucker and occupied by Tennessee Mill & Feed Co.; loss \$30,000.

Ala., Thomasville.—W. J. Parker's store; loss \$5000.

Ala., Troy.—Standard Chemical & Oil Co.'s oil mill and machine shop at Mill No. 1; loss \$60,000.

Ark., Clilo.—Triangle Lumber Co.'s hardwood mill; loss \$80,000.

Ark., Lexa.—St. Louis, Iron Mountain & Southern R. R.'s depot; loss \$3500; J. R. Stephens, Ch. Engr., St. Louis, Mo.

Fla., Ocala.—Ocala Iron Works; loss \$60,000.

Fla., Seabreeze.—Clarendon Hotel Co.'s garage and laundry; loss on buildings \$15,000.

Fla., Trilby.—H. B. Courtney & Son's planing mill and 75,000 to 100,000 ft. lumber; loss \$10,000.

Ga., Dublin.—Hopewell Orphanage, near Dublin.

Fla., Seabreeze.—Clarendon Garage on N. Atlantic Ave.

Ga., Egypt.—W. H. Foy's residence; loss \$10,000.

Ga., Dallas.—High school; loss \$12,000. Address The Mayor.

Ga., Tifton.—W. C. Spurlin's dwelling on Park Ave.; loss about \$3000.

Ga., West Point.—Eady Baker Grocery Co.'s building; loss \$35,000.

Ky., Louisville.—Louisville Tobacco Warehouse Co.'s store; loss on building, owned by Muler, Ermle & Co. and Mrs. Fannie Scott estate, about \$18,000.

Ky., Owenton.—Christian Church (address The Pastor); P. A. Alexander's residence; total loss \$12,000.

Ky., Seabree.—J. A. Powell's tobacco stemmery, loss \$10,000; S. E. Eakins' store, loss \$3000; Ramsey Bros.' store, loss \$3000; A. B. Sellers' store, loss \$4000.

Ky., Williamsburg.—Seven Gables Hotel, owned by W. T. Inman; loss about \$3000.

La., Monroe.—Mrs. A. E. Butler's residence, occupied by Dr. A. Faulkner; loss \$3500.

La., Sulphur.—Sulphur Lumber Co.'s plant; loss \$12,000.

La., Tioga.—Lee Lumber Co.'s sawmill; loss \$30,000 to \$40,000.

Md., Salisbury.—Fulton Milling Co.'s flour and feed mills; National Concrete & Vault Co.'s plant; estimated loss \$40,000.

Miss., Biloxi.—R. M. Davis' building; loss \$8000.

Miss., Doolittle, P. O. at Newton.—Gin and crate factory, storehouse and warehouse owned by T. I. Doolittle and others.

Miss., Lake.—L. Platt's residence and store; loss \$10,000.

Miss., Moss Point.—Clay County Cotton Oil Co.'s plant; loss \$50,000.

Miss., Clarksdale.—Sunflower Lumber Mill; loss on plant about \$25,000.

Miss., Summit.—L. Aronson Son Co.'s store; loss \$25,000 to \$30,000.

Mo., St. Louis.—Moon Motor Co.'s building at 1st and Cornelia Sts.; loss \$40,000.

N. C., Clinton.—Clinton Electric Light Co.'s plant; loss about \$5000.

N. C., McCullers.—Wake Mercantile Co.'s store; loss \$5000.

N. C., North Wilkesboro.—C. C. Smoot & Sons Co.'s tannery hairhouse.

S. C., Columbia.—Guingard Brick Co.'s brick kiln in Brookland; loss \$2000.

S. C., Easley.—Mrs. A. W. Folger's residence; loss \$5000.

S. C., Varnville.—W. O. Thompson's 3 buildings, loss \$20,000; Varnville Hardware & Supply Co.'s store, loss \$20,000; Mortimer Mid-land's building, loss \$10,000; Varnville Furniture Co.'s store, loss \$3000; Mrs. M. H. Gray's residence, loss \$4000.

Tenn., Jackson.—Macedonia Methodist Church; loss \$3500. Address The Pastor.

Tenn., Knoxville.—Chas. M. Roberts' building on East Vine Ave.; loss \$5000 to \$6000.

Tenn., Memphis.—Southern Cotton Oil Co.'s seed and hull storage warehouse at South Bellevue Blvd. and Southern Ry.; loss about \$100,000; main office 24 Broad St., New York; C. D. Jordan, Dist. Mgr.

Tenn., Murfreesboro.—N. L. Clardy's residence; loss \$5000.

Tenn., Nashville.—Nashville Creamery Co.'s building.

Tenn., Shelbyville.—F. S. Landers' sawmill, loss \$3500; Bedford Hoop Co.'s plant, loss \$2800.

Tenn., South Pittsburg.—Statesman-Democrat Publishing Co.'s plant; loss \$3000.

Tex., Cleburne.—Dr. J. D. Rucker's residence at 807 N. Main St.; loss \$4000.

Tex., El Paso.—Texico Transfer Co.'s building; loss \$40,000.

Tex., Galveston.—Merchants & Planters' Compress & Warehouse Co.'s cotton warehouse; total loss reported to be \$900,000.

Tex., Houston.—Bayou Box Factory advises had no fire at factory; recent report incorrect.

Tex., Lancaster.—Dr. J. W. Fallen's residence; loss \$5000.

Tex., Longview.—Kelly's Plow Factory's molding-room; loss \$6000.

Tex., Royse City.—Presbyterian Church. Address The Pastor.

Tex., Sherman.—Sherman Cotton Oil Provision Co.'s sheds and warehouses; estimated loss \$35,000.

Va., Alexandria.—Belle Pre Glass Co.'s packing plant and storage-rooms.

Va., Ashland.—Ashland Auditorium, owned by J. D. Harris; loss \$3000.

Va., Disputanta.—John H. Hatch's residence; loss \$3000 to \$4000.

Va., Green Spring Station.—Chesapeake & Ohio Ry.'s passenger station; F. I. Cabell, Ch. Engr., Richmond, Va.

Va., Lynchburg.—American Box Co.'s boiler-room and vault; estimated loss \$6000.

Va., Windsor.—A. E. Kruse's sawmill.

W. Va., Grafton.—East End Glass Co.'s plant; loss \$30,000.

## DAMAGED BY STORM

Ga., Savannah.—Seaboard Air Line Ry.'s terminals on Hutchinson's Island; loss \$15,000; T. W. McGraw, Div. Supt.

## BUILDING NEWS

## BUILDINGS PROPOSED

## APARTMENT-HOUSES

Ark., Little Rock.—Matt Busch & Bro. will erect 2-story brick apartment building at 401-411 Ringo St.; cost \$35,000.

Fla., Clearwater.—R. H. Padgett is reported to erect building for stores and apartments or offices. (See Stores.)

Fla., Miami.—Mrs. Eva P. Quarterman, 139 11th St., will erect apartment-house; 3 stories; 11 suites; 2 firewalls; vacuum cleaner; telephone system; gas heaters; garage; 87x50 ft.; cream-colored stucco; copper bay windows on two upper floors; fireproof; entrance finished in concrete; stairways in firewalls; fireproof and concrete stairs; metal railings and automatic metal doors; tile baths; concealed plumbing; cost, exclusive of furnishings, \$20,000; Walter C. DeGarmo, Archt., Miami.

Ga., Macon.—Charles H. Hall has plans by Nisbet & Brown, Grand Bldg., Macon, to erect 2-story apartment-house; two apartments on each floor; stucco; cement shingles; cost \$10,000.

Ga., Savannah.—W. A. Chaffee is erecting 2-story apartment-house with store on ground floor; sand-lime brick construction; plate glass on front and side.

Mo., Kansas City.—M. and J. Greenman will erect 2 six-apartment flats at 3401-03 and 3407-09 Penn St.; 3 stories; brick and stone; cost \$10,000 each.

Mo., Kansas City.—E. P. Pratt will erect store and flat. (See Stores.)

Mo., St. Louis.—P. W. Chaney will erect 2-story tenement-house at 3531 Giles St.; cost \$3300; construction by owner.

Mo., St. Louis.—C. Deveraux will erect five 2-story tenements at 3529-45 Marcus St.; cost \$20,000; construction by owner.

Mo., St. Louis.—American Real Estate Building & Investment Co., Jeremiah Sheehan, Jr., and others are reported to erect apartments, flats and dwellings. (See Dwellings.)

Mo., St. Louis.—Eugene Epstein and others are reported to erect 3-story apartment on Waterman Ave.

Tenn., Knoxville.—Dr. J. H. Kincaid will remodel apartment-house on West Church Ave. and Henley St.; cost \$6000.

Tex., El Paso.—R. S. Davis will erect 3 brick tenements in Campbell's Addition; cost \$7000.

Tex., San Antonio.—J. C. Sullivan will erect apartment-house; 8 rooms; cost \$3000.

Va., Norfolk.—A. A. Watkins & Bro. will erect tenement-house on Redgate Ave.; cost \$14,000.

Va., Richmond.—E. H. Melton will erect brick tenement-house on Hanover Ave.; cost \$22,500.

## ASSOCIATION AND FRATERNAL

Ark., Hot Springs.—Knights of Pythias. W. S. Green, Supreme Chancellor, New Orleans, has plans by Reveron & Bailey, Birmingham, Ala., for Pythian Temple; hot-water bath-house, showers, etc.; bids opened June 1.

Fla., St. Petersburg.—Knights of Pythias will erect castle hall at 3d Ave. and Lake St.

Ky., Paris.—Y. M. C. A. accepted plans and specifications for building; cost \$26,000 to \$28,000; bids opened June 2.

N. C., Wilmington.—Pythian Castle Hall Corp., Inc., opens bids soon to erect hall; 42x66 ft.; cost \$13,000; ordinary construction; brick; stone front; heating and roofing not determined; electric lighting; H. E. Bonitz, Archt., Wilmington. (Lately noted.)

## BANK AND OFFICE

Ala., Birmingham.—Ingalls Iron Works, R. I. Ingalls, Prest., 2618 First Ave., will erect 2-story 78x30-ft. office building; steel and reinforced concrete construction.

Ala., Birmingham.—Dr. Alfred A. Walker, 501 Woodward Bldg., plans to erect 4-story building; 25x140 ft.; fireproof; roofing, heating, etc., not determined; cost \$35,000; architect not selected. (J. M. Walker lately noted to erect building.)

Fla., Clearwater.—R. H. Padgett will erect store and office or apartment building. (See Stores.)

Fla., Miami.—First National Bank, J. J. Cloughley, Prest., will erect brick building.

Ky., Whitesburg.—Ira Fields & Son will erect brick office building; cost \$25,000.

Md., Baltimore.—M. S. Atkinson, Jr., 112 Chamber of Commerce, is having plans prepared by Baldwin & Pennington, Professional Bldg., Baltimore, for office building at 37 South St.; 2 stories; brick and concrete; 20x54 ft.; ordinary construction; tin roof; cost \$60,000; contract let to Consolidated Engineering Co., Gunther Bldg., Baltimore. (Lately noted.)

Mo., Kansas City.—J. C. Wirthman has plans for store, office and theater building. (See Theaters.)

N. C., Durham.—Fred. C. Geer is reported to erect building at Main and Corcoran Sts.; 5 stories; lower floor for banking rooms for Fidelity Bank; upper floors for offices.

S. C., Bennettsville.—A. J. Matheson will erect arcade building for store and offices. (See Stores.)

Tenn., Pikeville.—First National Bank leased building and will not erect structure as previously noted.

Tex., Campbell.—State Bank will rebuild structure lately burned.

Tex., Kerrville.—Alfred Giles Co., Archt., San Antonio, Tex., receives bids until May 25 to erect bank building, etc. (See Stores.)

Tex., San Antonio.—Alamo National Bank is reported to have begun construction of 3 additional stories to bank building; reinforced concrete; brick facing; fireproof; will also install new elevators; cost of these improvements about \$60,000; reported to have let contract to American Fixture Co., Kansas City, Mo., to remodel and enlarge banking rooms, install vaults, provide interior finish of marble wainscot, solid mahogany window casings and doors, marble check tables and seats, tile floors, bronze grills, etc.; cost \$25,000. (Previously noted.)

## CHURCHES

Ala., North Birmingham, Sta. Birmingham. Baptist church, Rev. J. C. Cunningham, pastor, has plans by Reveron & Bailey, Birmingham, for building; 45x75 ft.; 2 wings 30x100 ft.; press and common brick; metal roofing; cost (without mechanical equipment) \$18,000; cost of heating plant \$500; bids opened May 15.

Ala., Birmingham.—Baptist church, Rev. J. C. Cunningham, pastor, has plans by Reveron & Bailey, Birmingham, for building; 45x75 ft.; 2 wings 30x100 ft.; press and common brick; metal roofing; cost (without mechanical equipment) \$18,000; cost of heating plant \$500; bids opened May 15.

Ala., Centerville.—Mt. Sinai A. M. E. Church has plans by Reveron & Bailey, Birmingham, for building; 40x75 ft.; brick veneer; metal roof; cost \$10,000; hot-air heat to cost \$350; electric lighting; bids opened May 1.

Fla., Miami.—Miami Dist. of Methodist Episcopal Church (Dr. L. S. Rader, interested) is reported to erect church at Lake Worth; also reported contemplating erecting college at Lake Worth.

Fla., Lakeland.—Methodist Episcopal Church rejected all bids to erect building; A. J. Poter, Archt., Lakeland. (Lately noted.)

Fla. Zona.—Miami Dist. of Methodist Episcopal Church (Dr. L. S. Rader, Miami, Fla., interested) is reported to erect church.

Ga., Warrenton.—Baptist Church will erect brick building. Address The Pastor.

Ky., Owenton.—Christian Church will rebuild structure reported burned; cost \$10,000 to \$15,000; plans not determined. Address proposals to W. B. Taylor.

Md., Baltimore.—St. Peter's Catholic Church, Poppleton and Hollins Sts., Rev. P. J. Kenny, Pastor, will erect altar; Vermont marble; cost \$4000; also plans to erect school.

Md., Brooklyn.—Brooklyn M. P. Church, Rev. W. S. Coe, pastor, is having plans prepared by Henry J. Tinley, 312 N. Charles St., Baltimore, for Sunday-school annex and red brick parsonage. (Lately noted to erect \$5000 parsonage.)

Miss., Meridian.—Central Methodist Church will erect building; cost \$75,000. Address The Pastor.

Mo., Excelsior Springs.—Episcopal Church is being organized by Bishop Sidney C. Partridge of Kansas City Diocese; plans to erect building.

Mo., Joplin.—United Presbyterian Church will erect \$25,000 building. Address The Pastor.

Mo., Kansas City.—First Christian Church, Rev. W. F. Richardson, pastor, will rebuild church lately noted burned; cost \$50,000.

Okla., El Reno.—First Christian Church will erect building; cost \$50,000. Address The Pastor.

S. C., McColl.—First Baptist Church opens bids in about 90 days to erect building; probably slate roof; hot-air heat; electric lighting; architect not selected; cost \$20,000; address proposals to Dr. J. R. Blivins; lately noted. (See Machinery Wanted.)

S. C., Rock Hill, R. F. D. Bethany.—A. R. P. Church has plans by J. S. Starr, Rock Hill, for building; 40x100 ft.; 2 transepts, 20x20 ft.; brick; steam heat; cost \$10,000; opens bids about June 15.

S. C., Saluda.—M. E. Church, B. W. Crouch, Chas. Building Comm., will expend \$10,000 to erect building; 50x90 ft.; brick; metal, tile or slate roof; hot-air furnace; probably acetylene gas lighting; architect not selected; bids opened probably by June 1. (Lately noted.)

Tenn., Nashville.—Payne Chapel, A. M. E. Church, will erect brick building at Winter and Seventh Sts.; cost \$7000. Address The Pastor.

Tenn., Union City.—Methodist Church has plans by R. A. Heavner, Jackson, Tenn., for building; construction to permit combining main auditorium and Sunday-school, providing seating capacity of 1500; mat brick; stone and vari-colored brick trimmings; cost \$40,000; bids opened May 29.

Tex., Shiner.—Methodist Church will erect building; cost \$3000. Address The Pastor.

S. C., St. Matthews.—Methodist church, Rev. Geo. F. Kirby, pastor, is reported to erect \$25,000 building.

Va., Alexandria.—St. Rita's Catholic Church is erecting building at Mt. Oida, Alexandria county; 1 story; brick; cost \$10,000. Address The Pastor.

Va., Portsmouth.—Calvary Baptist Church will expend \$25,000 to erect building; 100x100 ft. and 68x63 ft.; ordinary construction; slate roof; low-pressure steam heat; electric lighting; Chas. M. Major, Archt., Old Kira Bldg., Portsmouth; sub-contracts amount to \$5000 to \$10,000; day labor supervised by architect. (Lately noted letting contract to Taylor & White.)

## CITY AND COUNTY

Ark., El Dorado.—Home.—Union County Commrs. are reported to erect building for county poor and convicts; cost \$12,000 to \$14,000.

Fla., Miami.—Hospital and Fire Department. City voted \$30,000 bonds to purchase equipment for fire department, purchase site and establish additional fire stations, and \$10,000 bonds to purchase site and erect hospital; J. W. Watson, Mayor. (Lately noted.)

Ga., Pelham.—Municipal Building.—City is having plans prepared by T. W. Smith & Co., Garrard Bldg., Columbus, Ga., for municipal building; pressed brick; concrete trimmings; 4 jail cells. (Lately noted.)

Ga., Tifton.—Fire Department.—City voted \$7000 for fire equipment and defeated \$8000 bonds to erect city hall. Address The Mayor. (Lately noted.)

Ky., Whitesburg.—Armory.—Letcher county will build armory; cost \$3000; bids until June 1. Address Chas. H. Back, Whitesburg.

La., Wilson.—Town Hall.—Town Council

will erect combination school and town hall. (See Schools.)

Miss., Meridian.—City Hall.—City will expend \$100,000 to erect city hall; 7 stories; auditorium to seat 3500; P. J. Krouse, architect, Meridian, Miss. (Lately reported.)

Mo., St. Louis.—Hospital.—City receives bids at Room 300, City Hall, until June 5 to erect ward buildings Nos. 1 and 2 of Isolation Hospital; plans and specification at office of Prest. of Board of Public Improvements.

Mo., Savannah.—Infirmary.—Andrew County is having plans prepared by Eckel & Aldrich, Corby-Forsee Bldg., St. Joseph, Mo., for infirmary 4 miles east of Savannah; fireproof; brick exterior walls; slate roof; cement porch floors; electric lights; heating plant; water and sewerage system; laundry; superintendent's quarters in central 2-story section; cost \$25,000; bids opened June 4.

N. C., Raleigh.—Fire Station.—City opened bids to erect fire station for Company No. 2; C. V. York, Raleigh, is lowest bidder at \$5986.15. (Lately noted.)

Okla., Collinsville.—City Hall.—City will sell \$4000 bonds for city hall extension and improvements; Wm. M. Gresham, clerk. (Previously noted.)

Tenn., Memphis.—Art Museum.—Bids are reported to be received until May 21 by Mrs. S. H. Brooks, through James Gamble Rogers, Archt., 11 E. 24th St., New York, for art museum in Overton Park, to be presented to city as memorial; marble construction; gallery with floor space of 83x44 ft.; picture gallery in center; apartments for decorative arts on two sides, each 16½x44 ft.; sculpture loggia entire width of building in rear; cost \$100,000. (Previously noted.)

Tex., Beaumont.—Hospital.—Jefferson County defeated \$140,000 bonds to erect hospital. (Lately noted.)

Tex., Houston.—Hospital.—City is considering locations for proposed municipal hospital; also reported to erect charity hospital near Rice Institute; Ben Campbell, Mayor.

Tex., Terrell.—City Hall.—City rejected all bids to erect city hall, and will call for new bids; plans by Van Slyke & Woodruff, 515 W. 5th St., Fort Worth, call for fireproof structure; 100x100 ft.; steam heat; electric lights; cost about \$40,000. (Lately noted.)

Va., Charlotte Court House.—Jail.—Charlotte county, J. C. Carrington, Clerk, receives bids until June 20 to build jail and repair present building; plans and specifications at offices of County Clerk and Hill C. and H. Colvin Linthicum, Archts., Durham, N. C.

Va., Martinsville.—Municipal Building.—City is having tentative plans prepared by J. R. Gregory, City Engr., for municipal building to contain council chambers, city offices, fire department, etc.; cost (without mechanical equipment) \$12,000; ordinary construction; brick; probably tin roof; heating and lighting not determined; architect not selected; construction probably by Aug. 1. (Lately noted.)

## COURTHOUSES

Ga., Savannah.—Chatham County Commissioners open bids in 30 days to make alterations to courthouse; fireproof; cost \$5000; Wallin & Young, Archts., Savannah.

Miss., Walthall.—Webster County Commissioners have plans by Overstreet, Spencer & Paine, 601 Merchants' Bank Bldg., Jackson, Miss., for courthouse; 65x100 ft.; 2 stories and basement; fireproof construction; tile and Barrett's specification roof; fireplaces; cost \$40,000; plans ready July 1.

Okla., Madill.—Marshall County Commrs. open bids June 20 to erect courthouse; 82x89 ft.; fireproof; concrete, with Johns-Manville roofing; cost \$75,000; steam heat to cost \$3000; Jewell Hicks, Archt., Durant, Okla., address proposals to County Clerk. (Previously noted.)

Okla., Muskogee.—Treasury Dept., Oscar Wenderoth, Supervising Archt., Washington, receives bids until June 5 to erect postoffice and courthouse. (See Government and State.)

## DWELLINGS

Ala., Birmingham.—R. L. Gregory opens bids about May 25 to erect residence; 30x40 ft.; frame; composition roof; furnace heat; cost \$4500; Miller & Martin, Birmingham, Archts. (Lately noted.)

Ala., Birmingham.—Dr. J. T. Thomas has plans by Reveron & Bailey, Birmingham, for dwelling; 2 stories; frame and brick; cost \$3500; hot-air heat to cost \$350; bids opened May 15.

Ala., Birmingham.—W. S. Cooper will erect one-story frame and two-story brick dwellings on 15th Ave.; cost \$5000.

Ala., Huntsville.—Geo. C. Blanton is having plans prepared by Edgar L. Love, 1314 Jefferson Bank Bldg., Birmingham, for residence.

Ala., Mobile.—M. C. Forchheimer has plans by G. B. Rogers for dwelling; 10 rooms; ordinary construction; slate roof; hot-water heat; day labor; subcontracts include plumbing, masonry, marble work and hardwood floors. (Lately noted.)

D. C., Washington.—Jas. T. Kenyon, 817 14th St. N. W., has plans by W. S. Plager, 210 N. Capitol St., Washington, for two 2-story brick dwellings at 1015 17 10th St. and 914 Virginia Ave.; cost \$9000; construction by owner.

D. C., Washington.—J. Edward Chapman, 1101 Rhode Island Ave. N. W., has plans by N. T. Haller, Corcoran Bldg., Washington, to erect five 2-story brick dwellings at 2250 Hanover Pl. N. W.; cost \$8600; construction by owner.

D. C., Washington.—Geo. Koehler, 511 Oak St. N. W., will erect three 2-story dwellings at 1444-48 Oak St. N. W.; cost \$10,000; plans and construction by owner.

Fla., Coconut Grove.—C. Mailhot, Indianapolis, Ind., is reported to erect residence on Jackson-Peacock Grove property.

Fla., Jacksonville.—D. M. Dismuke will erect 2-story frame residence on Myra St.; cost \$3500.

Fla., Lake Hamilton.—Frank H. Hughes of Kokomo, Ind.; C. R. Wilder and Leon Leu, both of St. Louis, are reported to erect 3 bungalows.

Fla., Leesburg.—Rufus Vinsant, Ashland, Ky., and others are reported to erect 6 dwellings, etc. (See Miscellaneous Structures.)

Fla., Mims.—J. E. Miller, Supt. Constr., Southern Farms & Fruit Co., will erect 36x44-ft. bungalow. (See Fla., Titusville.)

Fla., Miami.—A. J. Rose will not erect residence as lately reported.

Fla., St. Augustine.—Mrs. Minnie J. Dear-dorf will erect bungalow.

Fla., St. Augustine.—Geo. H. Martiz, Detroit, Mich., has plans by Fred. Henderlich, St. Augustine, for residence.

Fla., Tampa.—A. B. Jones will erect residence on South Rome Ave.; cost \$3500.

Fla., Titusville.—Southern Farms & Fruit Co., J. E. Miller, Glen Campbell, Pa., Supt. Constr., will erect during fall and winter houses and bungalows along Indian River and Orlando Highway; Mr. Miller will build 36x44-ft. bungalow at Mims, Fla. (Lately noted.)

Ga., Albany.—Mrs. Morris Sift will erect brick bungalow; tiled bathrooms; cost \$4000; plans by M. J. Reidy, Albany.

Ga., Atlanta.—John B. Bowen will erect frame residence to cost \$4200.

Ga., Atlanta.—Fair Dodd, 327 Grant Bldg., will not erect residence until spring of 1915. (Lately noted.)

Ga., Crawfordville.—Col. Haines Cloud will erect residence.

Ga., Delray, R. F. D. Thomaston.—Judge F. J. Reeves will erect residence to replace burned structure.

Ga., Gainesville.—Dr. L. R. Bryson will erect dwelling.

Ga., Gainesville.—Prof. J. D. Severns will erect residence.

Ga., Macon.—Willingham Loan & Trust Co. will erect 2 frame dwellings on Harde-man Ave., Vineville; 2 stories.

Ky., Louisville.—Lena M. Gutterman will erect 2-story brick-veneer dwelling at 1906 Ivanhoe Ct.; cost \$4000.

Ky., Louisville.—Rose Hudson will erect brick veneer dwelling at 2027 Baringer Ave.; cost \$5000.

Ky., Louisville.—H. L. Nevin will erect brick-veneer dwelling at 2063 Eastern Parkway; cost \$6200.

Ky., Louisville.—J. Jacobson will erect 12 frame dwellings on W. Oak and Date Sts.; cost \$20,500.

Ky., Perryville.—W. G. Prewett is having plans prepared by Val P. Collins, Paul Jones Bldg., Louisville, for residence; 45x69 ft.; frame; hot-water heat; electric lighting; tile roof.

La., New Orleans.—W. P. McDonald will erect 2-story frame residence at 609 Seguin St.; cost \$4000.

La., New Orleans.—Geo. E. Egdorf will erect 2-story frame residence; cost \$3000.

La., New Orleans.—Edw. L. Markel will erect 2-story frame residence at 1637 Carroll-ton Ave.; cost \$3000.

La., New Orleans.—L. Aaronson will erect 3 double cottages at 4905 Danneel St.; cost \$4800.



Md., Baltimore.—Louis A. Muller, 1852 W. Mulberry St., will erect residence on Alto Ave. near Garrison Ave.; 2½ stories; frame; slate roof; 27.6x42.6 ft.; plans and construction by owner.

Md., Baltimore.—Dr. Wm. Bullock Clark, 1118 N. Charles St., has plans by Laurence H. Fowler, 347 N. Charles St., Baltimore, for residence on Charles St. near Guilford; hollow tile and stucco; concrete foundation; construction under supervision of Geo. R. Morris, 45 Gunther Bldg., Baltimore.

Md., Baltimore.—John T. Donohue, 1908 Thames St., will erect number of 2-story dwellings on Linwood Ave. near Foster Ave.

Md., Baltimore.—D. M. Newbold & Co., Mt. Vernon Ave. and 26th St., have plans by C. W. Huber, 3127 Dillon St., Baltimore, for 13 dwellings on Booth St. between Calverton Rd. and Smallwood St.; 13x40 ft.; 2 stories; brick; tin roofs; cost \$10,000; construction by owner. (Lately noted.)

Md., Baltimore.—Robt. B. Thompson, Rosebank and Brackenridge Aves., will erect cottage on Rosebank Ave.

Md., Baltimore.—Frank Novak Realty Co. will expend \$45,000 to erect 45 dwellings on Linwood Ave.; 14x45 ft.; ordinary construction; tin roof; Callis & Callis, Archts., 2055 Kennedy Ave., Baltimore; construction by owner. (Lately noted.)

Md., Baltimore.—John G. Schwind, 2819 Raynor Ave., will erect 19 dwellings on Raynor Ave. and Albert St.; 2 stories; brick; cost \$26,000; W. B. Gerwig, Archt., 1028 N. Fulton Ave., Baltimore.

Md., Round Bay (not a P. O.).—Jesse H. Davis, B. & O. Bldg., Baltimore, will erect Swiss style residence; Wm. B. Gardner, Archt., Annapolis.

Md., Chevy Chase.—Dr. Edgar Buckingham, 1722 Newton St. N. W., Washington, does not contemplate erecting residence, as lately reported.

Md., Chevy Chase.—Michael Helster does not contemplate erecting residence, as lately reported.

Md., Mt. Washington.—Webb & White, Title Bldg., Baltimore, will erect 2 dwellings at Hill Top Park.

Miss., Jackson.—H. C. Tinney has plans by Overstreet, Spencer & Paine, 601 Merchants' Bank Bldg., Jackson, Miss., for dwelling; 2 stories; frame; asphalt shingle roof; hot-water heat; cost \$6000; plans ready in about 2 weeks.

Mo., Kansas City.—Dr. O. L. Castle, 425 Argyle Bldg., is reported to erect residence at 5th St. and Bellevue Ave.

Mo., Kansas City.—Abram Wolf will erect stucco-veneer dwelling at 2841 Benton St.; cost \$7500.

Mo., Kansas City.—Robbins & Hyne will erect one brick-veneer, one frame and one stucco-veneer dwelling at 4636-10 Montgall St.; cost \$5250.

Mo., Kansas City.—A. C. Black will erect 6 frame dwellings at 4037-45 Euclid Ave. and 1908 E. 41st St.; cost \$12,000.

Mo., Kansas City.—Gus Agee will erect 2 stucco-veneer dwellings at 3201 E. 32d St., 3305 Walrond St. and stone-veneer dwelling at 3307 Walrond St.; cost \$10,500.

Mo., St. Louis.—Anthony Casagrande will erect brick cottage on Botanical Ave.

Mo., St. Louis.—Paul Haanel will erect 2 1-story dwellings at 3816-17 Sophie St.; cost \$2300; construction by owner.

Mo., St. Louis.—American Real Estate Building & Investment Co., Jeremiah Sheehan, Jr., Walter Sheehan, Aug. H. Wiedt, Vincent A. Chinberg, A. A. Williams, Stewart & Hay Building Co., Wolf-Borders Realty Co. (for client), Henry A. Barnett, Wm. C. Hay and J. C. Walker, are reported to have acquired property on Shaw Ave., DeTonty St., Lafayette Ave. and Lawrence St. near Missouri Botanical Gardens, and to have let contract to erect dwellings, 2 and 4-suite flats and apartments to cost about \$25,000; operations to be financed by Anderson-Stocke-Buermann Realty Co.

N. C., Greensboro.—C. M. Vanstorty will erect residence.

N. C., Winston-Salem.—Crawford Mill Supply Co. will erect dwelling on Brookstown Ave.; 2 stories; 8 rooms; frame; slate roof; electric lights and gas; cost \$3000; day labor.

Tenn., Covington.—R. S. Maley has plans by Overstreet, Spencer & Paine, 601 Merchants' Bank Bldg., Jackson, Miss., for residence; 2 stories; brick; green tile roof; hot-water heat; cost \$17,000; plans ready June 10.

Tenn., Nashville.—Belmont Realty Co. is

reported to erect several bungalows on Ashwood Ave.

Tex., Alice.—P. A. Presnall will erect residence; brick veneer; about 16 rooms, private baths, etc.; is wiring and will install electric motor for water system; combination silo and water tank for fire protection and water for farm and domestic purposes; will not award lump contract; total cost about \$25,000.

Tex., Dallas.—Carl Frank will erect 5-room brick dwelling at 1630 Barry St.; cost \$3500.

Tex., Dallas.—C. P. Sites will erect 10-room brick veneer dwelling at 4930 Swiss St.; cost \$16,000.

Tex., Dallas.—John Catto will erect two 5-room frame cottages on Buckeye St.; cost \$3100.

Tex., Dallas.—H. D. Michaelson will erect 7-room frame cottage at 2309 Forest St.; cost \$3500.

Tex., Dallas.—Max Michaelson will erect 7-room frame cottage at 2213 Forest St.; cost \$3500.

Tex., El Paso.—W. D. Mosley will erect brick bungalow; cost \$5500.

Tex., El Paso.—J. E. Neff will erect brick bungalow in East El Paso; cost \$3000.

Tex., Fort Worth.—Albert Dines has about completed dwelling lately noted to be erected.

Tex., Hillsboro.—W. H. Sanders will expend \$4000 to \$5000 to erect 8-room residence; metal or asbestos shingle roof; hot-air or natural-gas heat; architect not engaged. (Lately noted.)

Tex., Houston.—J. H. Dore will erect 8-room residence in Montrose addition; cost \$4000.

Tex., Houston.—John Mustachia will erect store and dwelling. (See Stores.)

Tex., Houston.—H. A. Kinney will erect 2 duplicate dwellings in Highland Park addition; cost \$5150.

Tex., Houston.—J. E. Ogle will erect 8-room residence; cost \$4000.

Tex., Houston.—W. P. Bryan will erect 8-room residence in Montrose addition; cost \$4200.

Tex., Houston.—Mrs. E. Erickson will erect 8-room residence; cost \$4000.

Tex., Houston.—H. A. Kinney will erect two 7-room cottages on Beauchamp Ave.; cost \$5150.

Tex., Houston.—Bishop Gallagher will erect 2-story brick rectory at Texas Ave. and Jackson St.; cost \$12,458.

Tex., Houston.—G. R. Werrill will erect 8-room residence on West Main St.; cost \$3500.

Tex., Rockdale.—Mrs. A. H. Wilkins will erect cottage in Highland Park addition.

Tex., San Antonio.—J. B. McCampbell will erect 10-room dwelling on Agarita St.; 2 stories; brick; cost \$12,000.

Va., Lynchburg.—John L. Lee is reported to erect residence.

Va., Lynchburg.—S. T. Richardson will erect shingle dwelling at Boston and Elmwood Ave.; cost \$3500.

Va., Norfolk.—Mrs. Mary W. Thompson will erect double frame residence on 28th St.; 2 stories; cost \$5100.

Va., Norfolk.—J. Albert Mears opened bids to erect residence in Larchmont; W. J. Atkinson & Bro., Norfolk, are lowest bidders at \$4939; Louis R. Moss, Archt., Norfolk.

Va., Norfolk.—Randolph B. Cooke will erect residence at Lochaven; 2 stories; brick; 44 ft. 2 in. by 32 ft.; 9 rooms and 2 baths; Wycham C. Taylor, Archt., Norfolk; bids opened May 21.

Va., Richmond.—Morgan Bros. and D. W. Tabb will erect 2-story brick dwelling on West Ave.; cost \$10,400.

Va., Richmond.—E. Hutzler will erect 2-story brick dwelling at 2935 Monument Ave. and garage in rear; cost \$16,800.

Va., Richmond.—Jno. M. Wyatt will erect 2-story brick dwelling at 1706 Grove Ave.; cost \$6500.

Va., Richmond.—T. Crawford Redd and C. H. Archer will erect detached 2-story brick dwelling at 2215 Park Ave.; cost \$4250.

W. Va., Glen Dale.—W. J. Fletcher and Mr. Trussell of McMechen, W. Va., will erect residence.

W. Va., Warwood.—Frank Mayer will erect residence on Warwood Ave.; stone foundation.

## GOVERNMENT AND STATE

Ark., Hot Springs.—Constructing Quartermaster receives bids until May 27 to erect addition to bathhouse at Army and Navy General Hospital, including plumbing, heating and wiring; information on application.

D. C., Washington.—Animal House.—Treasury Dept., Oscar Wenderoth, Supvr. Archt., Washington, opened bids to erect animal house at Hygienic Laboratory; 2 stories and basement; 4300 sq. ft. ground area; fireproof, except roof; brick facing; composition roof; John H. Nolan, 1413 G St. N. W., Washington, is lowest bidder at \$30,552, and Skinner & Garrett, Evans Bldg., Washington, are lowest bidders for grading, sodding grounds, seeding, etc. (Lately noted.)

Ky., Pineville.—Postoffice.—First State Bank has plans by E. Ebner for building to be occupied by postoffice; 55x25 ft.; stone and brick; cost \$4000; metal roof; cost of heating plant \$450; construction May 15. (Lately reported.)

Md., State Sanatorium.—Sanatorium.—Maryland Tuberculosis Sanatorium has plans by Howard Sill, 11 Pleasant St., Baltimore, Md., for amusement hall, laboratory, store and postoffice building, and addition to administration building; frame and concrete; contractors estimating are Cowan Building Co., 106 W. Madison St.; Willard E. Harn Co., 213 N. Calvert St.; B. F. Bennett Building Co., 123 S. Howard St.; Gladfelter & Chambers, 2074 Woodberry Ave., all of Baltimore, Md., and Geo. B. MacWolf, Hagerstown, Md.; bids received until May 20.

Mo., Tipton.—Industrial Home.—Comms. of State Industrial Home for Incurable Negro Girls will let contract June 3 to erect home; 5 buildings; cost (without mechanical equipment) \$60,000; slate or tile roof; vacuum system of heating to cost \$8000; electric lighting; M. F. Bell, Archt., Fulton, Mo., to whom proposals may be addressed; lately noted to receive bids until June 1. (See Machinery Wanted.)

Okl., Muskogee.—Postoffice and Court-house.—Treasury Dept., Oscar Wenderoth, Supervising Archt., Washington, D. C., receives bids until June 5 to erect postoffice and courthouse; plans and specifications from Mr. Wenderoth and custodian of site at Muskogee.

Tex., Fort Bliss.—Officers' Quarters.—Depot Quartermaster, El Paso, Tex., receives bids until June 3 to construct, install plumbing, heating, electric wiring and fixtures in one set of non-commissioned officers' quarters at Fort Bliss; Wm. E. Hunt, Capt., Quartermaster Corps, U. S. Army.

Tex., Longview.—Postoffice.—Treasury Dept., Oscar Wenderoth, Supervising Archt., Washington, D. C., opened bids to erect postoffice; Moore & Rogers, Marshall, Tex., are lowest bidders at \$41,600 for limestone, and Daniel T. McCarthy, Philadelphia, Pa., at \$45,130 for sandstone construction; 2 stories and basement; non-fireproof; stone and brick facing; composition and slate roof; 3900 sq. ft. ground area.

Va., Hampton.—Postoffice.—Treasury Dept., Oscar Wenderoth, Supervising Archt., Washington, D. C., opened bids to erect postoffice; Torbert Construction Co., Philadelphia, Pa., is lowest bidder at \$18,322 for limestone and \$49,172 for sandstone construction; one story and basement; 4620 sq. ft. ground area; stone and brick facing; composition roof.

Va., National Soldiers' Home.—Grandstand.—W. H. Brewer, Supt. Post Fund, Southern Branch, N. H. D. V. S., receives bids until May 25 for material and labor to erect grandstand on Athletic Grounds.

## HOTELS

Ark., Texarkana.—Board of Trade, Louis Heilbron, Pres., is reported interested in organizing company to erect \$250,000 hotel, exclusive of furnishings, which are estimated to cost about \$100,000.

Fla., Atlantic Beach.—Atlantic Beach Hotel, H. M. Stanford, Mgr., will improve hotel in fall; change lighting system from direct to alternating current; build about 1 mi. white way, furnish electricity to about 65 cottages and for street lighting; erect palm grill, 150 additional bathhouses and arrange about 1 acre for landscape gardening; install ice plant and make improvements to engine-house; probably install Ball engines; is at present constructing 5 mi. boardwalk. (Previously noted.)

Mo., St. Louis.—New Southern Hotel, W. J. Beattie, Pres., is reported to improve hotel, expending \$24,000 for carpets, \$117,000 for furniture and \$22,000 for plumbing.

N. C., Asheville.—Coxe estate will erect laundry and clubhouse in connection with Battery Park Hotel, of which Jas. L. Alexander is proprietor; former 2 stories; fireproof; glass on south side; swimming-pool, gymnasium, etc.; cost of improvements about \$50,000.

N. C., Gastonia.—Armington Hotel Co., capital stock \$100,000, incptd. by C. B. Armstrong, R. B. Babington, A. E. Moore and others to erect hotel; 40 to 50 rooms; cost \$60,000 to \$75,000; 96x52 ft. 8 in.; 4 stories; Hook & Rogers, Archts., Charlotte, N. C.; construction about July 1; architects may be addressed. (Messrs. Armstrong and Babington lately noted organizing company.)

N. C., Southern Pines.—Highland Park Hotel Co., Dr. W. C. Mudgett, Pres., is having plans prepared by Aymer Embury, 132 Madison Ave., New York, for addition of 20 rooms to hotel, about 14x20 ft., with private bath to each room; will remove and remodel ballroom at opposite end of building; invites estimates. Address Dr. Mudgett.

Tex., Beaumont.—Edw. Paggi, Saratoga, Tex., has plans by Mauer, Knoblock & Simank, Beaumont, for rooming-house; 47x124 ft.; 2 stories; ordinary construction; cement tile roof; gas heat; bids opened May 22. Address proposals to architects.

Tex., Beville.—Beville Hotel Co., Dr. E. P. Coyo, Secy., will expend \$45,000 (cost without mechanical equipment) to erect hotel; 75x130 ft.; fireproof; gravel roof; electric lighting; concrete and brick sidewalks; one freight and one passenger elevator; Stephenson & Holdenfeldt, Archts.; date of opening bids not set; address proposals to J. C. Burrows, Beville. (Lately noted.)

Tex., Brownwood.—Gulf, Colorado & Santa Fe Ry. Co., F. Merritt, Chief Engr., Galveston, Tex., invites bids to erect hotel and dining-room; 40x109 ft.; concrete foundation; brick walls; tile roof; cost \$70,000; steam vacuum system of heating to cost \$8000; electric lighting to cost \$2000. (Lately noted under Miscellaneous Structures.)

Va., Winchester.—Mrs. O. L. Jack receives bids about June 1 to erect hotel; 4 stories; 45x57 ft.; cost (without mechanical equipment) \$40,000; ordinary construction; tin roof; steam heat; gas and electric lighting; electric elevator; Stuart H. Elmonds, Archt., Winchester; lately noted. (See Machinery Wanted.)

## MISCELLANEOUS

Ala., Birmingham.—Clubhouse.—Country Club, E. H. Cabanis, Pres., is reported to expend \$30,000 for improvements to include installation of additional lockers, etc.

Ala., Mobile.—Fair.—Mobile Fair Association, it is reported, will purchase property and erect buildings for fair.

Fla., Leesburg.—Clubhouse, etc.—Rufus Vinsant, Ashland, Ky.; Dr. Collier, West Liberty, Ky.; Col. S. E. Darrow of Indiana; Judge Hannah, Frankfort, Ky., and Maj. Camden, Versailles, Ky., are reported to have acquired Stone Mountain, to erect clubhouse, 6 residences, install water-works, electric-light plant, build wide hard-surface road leading to main thoroughfare, etc.

Fla., Pensacola.—Hospital.—Sisters of Mercy, Emmitsburg, Md., have plans by A. O. Von Herbulis, Woodward Bldg., Birmingham, Ala., for hospital; main building 300x235 ft., 5 stories and basement; separate building in rear; also separate building for laundry and boiler rooms; cost \$225,000. (Lately noted.)

Ky., Whitesburg.—Armory.—Whitesburg Company, Kentucky National Guard, C. H. Back, captain, is receiving bids to erect armory; cost \$2000.

Mo., Kansas City.—Clubhouse.—Automobile Club of Kansas City has plans by Louis Curtis, Kansas City, for clubhouse; stucco; 40x60 ft.; porch entire length and on two sides; cost of building about \$7500; furnishings \$1000; drives \$1500.

Mo., Kansas City.—Clubhouse.—Blue Hills Club, 61st St. and Flora Ave., has plans by Henry F. Holt, Kansas City, for locker-house and garage; 2 stories; first floor for stone garage; second floor to have stucco finish and contain steel lockers and shower baths; interior finish of plaster; reinforced concrete floors; 63.5x104 ft.; cost \$14,000.

Mo., St. Joseph.—Hospital.—Trustees of Noyes Hospital have preliminary plans by Schmidt, Garden & Martin, 179 W. Washington St., Chicago, and Rudolph Meier, St. Joseph, for hospital. (Lately noted.)

N. C., Asheville.—Clubhouse and Laundry. Coxe estate will erect clubhouse and laundry in connection with Battery Park Hotel. (See Hotels.)

Tex., Beaumont.—Livery.—Caswell estate is

reported to erect building for livery company. (See Stores.)

Tex., El Campo.—Sheds.—El Campo Lumber Co. will erect sheds and warehouses. (See Warehouses.)

### RAILWAY STATIONS, SHEDS, ETC.

Ala., Troy.—Atlantic Coast Line Ry., E. B. Pleasants, Ch. Engr., Wilmington, N. C., let contract A. M. Walkup Co., Richmond, Va., to erect station; 36x144 ft.; slow-burning construction; asbestos shingle roof; cost \$15,000. (Lately noted.)

Fla., Clearwater.—Tampa & Gulf Coast Ry., C. H. Lutz, Gen. Mgr., Odessa, Fla., will erect passenger and freight depot in Magnolia Park.

La., Baton Rouge.—Louisiana Ry. & Navigation Co., Wm. Edenborn, Prest., Hibernia Bank Bldg., New Orleans, La., will erect brick passenger station 35x50 ft.; construction by company's force. (Lately noted.)

Tex., Beaumont.—Kansas City Southern Ry., C. E. Johnston, Chief Engr., Kansas City, Mo., is reported to erect depot to cost at least \$26,000.

Tex., Houston.—Texas Lumber Co. will erect shed on Texas Ave.; cost \$5000.

### SCHOOLS

Ala., Ashford.—City, J. S. Radney, Mayor, votes June 8 on \$10,000 bonds to erect school.

Ala., Bessemer.—City voted \$30,000 bonds to erect school; Geo. Ross, Prest. of City Council. (Lately noted.)

Ala., Opelika.—Trustees City Public School, Reid B. Barnes, Chrmn., reported contemplating erection of additional story to high school.

Ark., Argenta.—School Board will expend \$18,000 to erect grammar school; ordinary construction; slate roof; cost of heating \$2500; electric lighting; Chas. L. Thompson, Archt., Little Rock, Ark.; let contract May 20. Address proposals to Jas. Gulach, Argenta. (Lately noted.)

Ark., Haynes.—City is reported to erect \$10,000 school. Address The Mayor.

Fla., Brooksville.—Brooksville School Dist. will consider election on \$20,000 bonds to erect school. Address Dist. School Trustees.

Fla., Mialka.—Manatee County School Board, Bradentown, Fla., J. Gates, Chrmn., receives bids until June 3, 1914, to erect frame school; plans and specifications at office of Board.

Fla., Miami.—School Board will erect high school; 3 stories and basement; accommodations for 400 to 500 pupils; is having plans prepared by August Geiger, Miami, for Riverside, South Side and Orange Glade schools, and by W. C. DeGarmo, Miami, for addition to 2d St. school, erection of Buena Vista, Allapattah and Highland Park schools; all these improvements included in \$150,000 bond issue previously voted. (Lately noted.)

Fla., Mulberry.—Special School Tax Dist. No. 13 will vote June 8 on \$15,000 bonds to erect school; Chester A. Parker, Supt. Board Public Instruction of Polk County, Bartow, Fla.

Fla., Ojus.—Ojus School Dist. is having plans prepared by August Geiger, Miami, for schools at Ojus and Miami Gardens; former 4 rooms and auditorium, concrete; latter 3 rooms; voted \$12,000 bonds; R. E. Hall, Supt. of County Board of Public Instruction, Miami. (Lately noted.)

Fla., Pierson.—City has plans by J. T. Cairns, DeLand, Fla., for school.

Fla., Seffner.—Seffner School Dist. Trustees, T. J. Beaty, Secy., will erect 2-room concrete or brick school building; cost \$3000 to \$5000. (Lately noted to vote June 9 on \$3000 bonds.)

Fla., St. Petersburg.—Southland Seminary, C. Perry Snell, Chrmn. of Building Comm., 200 Home Security Bldg., will expend \$60,000 to \$70,000 (cost without mechanical equipment) to erect first of series of buildings for girls; 23x138 ft.; patio in center; 2 stories; ordinary construction; green tile roof; hot-water heat to cost \$8000 to \$10,000; electric lighting to cost \$6000 to \$7000; day labor. (Lately noted.)

Ga., Donaldsonville.—Nazarene College is having plans prepared by P. E. Dennis, American National Bank Bldg., Macon, for building; 3 stories; brick and stone; tin roof; cost \$20,000; T. J. Shingler, Chrmn. Building Com.

Ga., Locust Grove.—Locust Grove Institute, Prof. Claude Gray, principal, will erect dormitory; 45x30 ft.; frame; metal roof; hot-water heat; hardwood floors; plumbing and gas fixtures; cost \$6000.

Ga., Morgan.—City will expend \$10,000 to erect grammar school; 70x50 ft.; ordinary

construction; metal shingle roof; steam heat to cost \$1000; T. F. Lockwood, Archt., Columbus, Ga.; date of opening bids not set; address proposals to Z. T. Rabun. (Lately noted.)

Ga., Norcross.—City, O. O. Simpson, Mayor, receives bids until June 10 on \$4000 bonds to erect school.

Ga., Pelham.—City having plans prepared by T. W. Smith & Co., Garrard Bldg., Columbus, Ga., for school; press brick; tile roof; steam heat; 8 classrooms; cost \$15,000; bids until May 28. (Lately noted.)

Ga., Rome.—Berry School has plans by Coolidge & Carlson, Boston, Mass., to rebuild dining hall; 85x125 ft.; cost \$23,000 to \$24,000; semi-fireproof; tar and gravel roof; vapor heat to cost \$2600; bids opened soon. (Lately reported burned.)

Ga., Tifton.—City voted \$13,000 bonds to erect high school. Address The Mayor. (Lately noted.)

Ky., Benton.—Trustees are having plans prepared by Val P. Collins, Paul Jones Bldg., Louisville, for graded and high school building; 116x60 ft.; ordinary construction; gravity steam heat; gas lighting; cost \$15,000.

Ky., Danville.—Kentucky College for Women will erect chapel and dormitory building; cost \$80,000.

Ky., Democrat.—Letcher county will build school near Beaver Dam; cost \$5000; contract let June 1. Address Chrm. Board of Trustees.

Ky., Louisville.—Saml. D. Jones, Business Director Board of Education, Administration Bldg., 8th and Chestnut Sts., receives bids until June 5 to erect high school for boys in Brook St.; plans and specifications at office of Mr. Jones; J. Earl Henry, architect, Louisville.

La., Gilbert.—Ward 2 voted tax to erect \$20,000 school. Address School Trustees.

La., Wilson.—Town Council will erect school with town hall on upper floor; A. B. Singletary, Julius Adler and J. R. Smith, building committee.

Md., Baltimore.—St. Peter's Catholic Church, Poppleton and Hollins Sts., plans to erect school. (See Churches.)

Md., Mt. Carmel.—Baltimore County Commissioners, Albert S. Cook, Supt. of Education, Towson, Md., will erect high school; 2 stories; brick; stone trimmings; slate roof; first floor to contain laboratories, manual-training and domestic-science rooms, machinery-room equipped with pump and pneumatic tank for water supply, boiler-room for steam heating system, shower baths, etc.; second floor to contain 8 classrooms, etc.

Md., Towson.—Baltimore county defeated \$500,000 bond issue for schools; Albert S. Cook, Supt. Education. (Lately noted.)

Miss., Ashland.—City is reported considering erection of high school; W. T. Renick, Dr. Frank Farrell, J. M. Autry and others, Com.

Miss., College Hill.—Trustees of Lafayette County Agricultural High School have plans by Overstreet, Spencer & Paine, 601 Merchants' Bank Bldg., Jackson, Miss., for dormitory; 3 stories; frame; cost \$10,000; plans ready May 21.

Miss., Mt. Olive.—City and Covington county contemplate voting on \$25,000 bonds to erect agricultural school, town's portion being \$10,000. Address County Commrs.

Mo., Booneville.—Booneville School Dist. Trustees are reported to erect \$65,000 Laura Speed Elliot high-school building.

Mo., Cassville.—Cassville School Board will expend \$14,000 (including mechanical equipment) to erect school; 60x75 ft.; ordinary joist construction; 3-ply asbestos roof; low-pressure steam heat; H. H. Hohenschild, Archt., 310 Navarre Bldg., St. Louis; date of opening bids not set. (Lately noted.)

Mo., Forsythe.—Board of Education, D. F. McConkey, Secy., will expend \$10,000 to erect school; 57x57 ft.; 2 stories and basement; ordinary construction; tar and gravel roof; J. H. Heckenlively, Archt., Springfield, Mo. (Lately noted.)

Mo., Kirksville.—Board of Education, F. L. Link, Secy., will expend \$62,000 to erect school; 146x96 ft.; fireproof; composition roof; steam-blast system of heating; Trunk & Gordon, Archts., St. Joseph, Mo. (Lately noted to receive bids until May 25.)

Mo., La Plata.—School Dist. sold \$30,000 bonds to erect school building; address School Commrs. (Lately noted.)

Mo., Marshall.—Missouri Valley College will erect proposed Louisa Campbell dormitory.

Mo., Springfield.—School Dist. will expend

\$41,000 or \$42,000 to erect school at George & Fremont Aves.; 61x54 ft.; fireproof; slate roof; direct steam heat; O. L. Brettner, Archt., Springfield; bids opened May 14. (Previously noted.)

Mo., Wellston, P. O. at St. Louis.—Wellston School Dist. voted \$40,000 bonds for schools. Address Dist. School Trustees. (Previously noted.)

N. C., Hendersonville.—Fassifern College for Women, Miss Kate C. Shipp, principal, Lincolnton, N. C., selected Caldwell Robertson property as location of college; will erect additional building to cost \$10,000.

Okl., Oklahoma City.—Consolidated School Dist. No. 1, Oklahoma county, will vote on \$20,000 bonds to erect 2-story 8-room brick fireproof school. Address Dist. School Trustees.

S. C., St. Matthews.—School Dist. No. 8 opens bids May 29 to erect addition to building; 40x50 ft.; ordinary construction; cost \$5000; W. A. Edwards, Archt., 632 Candler Bldg., Atlanta; address proposals to J. H. Loryes, Clerk. (Lately noted voting \$5000 bonds to complete school.)

Tenn., Chattanooga.—J. A. Hargraves, Chrmn. Hamilton County Board of Education, receives bids at office of J. L. Hair, Supt. of Hamilton County Schools, until June 2 to erect 1-story brick grammar school at New Providence; plans and specifications at office of W. H. Sears, Archt., 821 James Bldg., Chattanooga. (Lately noted to erect building to cost \$8000.)

Tenn., Rockwood.—Board of Education will expend \$40,000 to erect school; 16 classrooms and auditorium; mill construction; composition roof; steam heat; electric lighting; H. L. Huntington, Archt., 8th and Market Sts., Chattanooga, Tenn.; date of opening bids not determined; architect may be addressed. (Lately noted.)

Tex., Belton.—City, Neal Bassell, Mayor, receives bids until June 2 to erect high school; separate bids for plumbing, heating and wiring; 2 stories and basement; brick; ordinary construction; tar and gravel roof; direct steam heat; cost about \$40,000; plans, specifications and further information from Sanguinet & Staats, Archts., Fort Worth. (Lately noted.)

Tex., Brunner.—Brunner Independent School Dist. voted \$16,000 bonds to erect high school. Address Dist. School Trustees.

Tex., Dallas.—Highland Park School Board will vote June 13 on \$30,000 bonds to erect school.

Tex., Dallas.—School Board has plans by W. F. Nicol, P. O. Box 338, Dallas, for Exall School.

Tex., Dallas.—Dallas County Common School Dist. Nos. 47, 66 and 67 are reported to vote \$12,000, \$15,000 and \$10,000 bonds, respectively. Address Dist. School Trustees.

Tex., Dallas.—Western Heights Independent School Dist. has plans by Mr. Leinbach, St. George's Hotel, Dallas, for school; 12 rooms and auditorium; ordinary brick construction; tar and gravel roof; open bids June 1; cost \$14,500; address Carl Thorne, Sta. A, Dallas. (Lately noted.)

Tex., Galveston.—Public School Trustees receive bids until May 22 to erect 4-room annex to Bath Ave. School and install heating; plans and specifications at office of A. J. Bellis, Archt., 1403 Tremont St., Galveston.

Tex., Galveston.—Trustees of Public Schools receive bids until June 1 to erect Rosenberg School; plans and specifications at office of L. S. Green, Archt., 1111 American National Insurance Bldg., Galveston, and 532 Commercial National Bank Bldg., Houston. (Lately noted.)

Tex., Hempstead.—Bids received until June 4 to erect 2-story brick school building; plans on application to C. H. Page & Bro., Archts., Austin.

Tex., Houston.—Harris County Commrs. will soon advertise for bids for proposed school for girls; cost \$12,000.

Tex., Lamarque.—J. M. Fendley, County School Supt., Galveston, Tex.; Lamarque School Trustees, Lamarque, and Lane & Dowdy, Archts., Stewart Bldg., Houston, Tex., receives bids until May 30 to erect 1-story-and-basement reinforced concrete, brick and hollow-tile school; plans on file at office of Mr. Fendley and architects, and from Mr. Westerlage, Lamarque. (Previously noted.)

Tex., Laporte.—St. Mary's Seminary will erect Adoue Memorial Hall; 40x100 ft.; 2 stories.

Tex., Lyons.—City is considering \$10,000 bond issue to erect brick school. Address The Mayor.

Tex., Frost.—Frost School Dist. is reported considering \$10,000 bond issue to erect 2-story

brick school; address District School Trustees.

Tex., Georgetown.—Southwestern University will expend \$60,000 and \$90,000, respectively, to erect science and fine arts buildings; 50x110 ft. and 120x154 ft.; fireproof; slate roof; central steam (cost not determined) heating plant; central electric plant; C. F. Ward, Archt., 416 Union National Bank Bldg., Houston, Tex.; no date set for opening bids. (Lately noted.)

Tex., Teague.—Teague Ind. School Dist. voted \$60,000 bonds to purchase site and erect high school. Address Dist. School Trustees.

Tex., Voca.—Board of Education, E. B. Elliott, Mem. of Com., opens bids about July 25 to erect 5-room school; ordinary construction; cost \$6000; heating and roofing not determined. (McCulloch County Board of Education lately noted consolidating Voca and Liberty school districts and ordering election on \$6000 bonds.)

Va., Holland.—School Board of Holy Neck Dist., J. R. Holland, Chrmn., receives bids until May 30 to erect school; separate bids for heating and ventilation; plans and specifications at residence of Mr. Holland; reported cost \$12,000.

Va., Lexington.—Washington and Lee University, Dr. H. L. Smith, Prest., will erect \$75,000 gymnasium; completion by January, 1915.

Va., Richmond.—School Board has plans by C. M. Robinson, Inc., Richmond, for Binford School; steel and concrete; fireproof; exterior walls of hard-burned brick; 20 classrooms; gymnasium and auditorium; forced air heating and ventilating system; inclined planes for stairs and fire escapes; open-air classrooms on roof; Board recommended that contracts for construction be let to A. M. Walkup, and for heating and ventilating to American Heating & Ventilating Co., both of Richmond.

W. Va., Bunker Hill.—Board of Education has plans by F. O. Trump, Kearneysville, W. Va., for school; 56x54 ft.; concrete and brick; asbestos roofing; hot-water heat; cost \$5300; address proposals to G. H. Boxen, Bunker Hill. (Lately noted.)

W. Va., Charleston.—Board of Education of Charleston Independent School Dist., W. O. Daum, Secy., receives bids until June 1 to erect two 10-room schools on Elizabeth St. and Homer St. near Florida Ave.; separate bids for heating and plumbing; H. Rus Warne, Archt., Charleston; plans and specifications at office of Board at High School.

W. Va., Fulton.—Washington County Dist. votes May 26 on \$20,000 bonds to erect school; Richard A. Stein, Prest.

W. Va., Grafton.—Grafton Independent School Dist. votes June 7 on \$110,000 bonds to erect high school; is having plans prepared by Frank L. Packard, Archt., Columbus, O. (Lately noted.)

W. Va., Institute.—State Board of Control, Jas. S. Lakin, Prest., 403 Capitol St., Charleston, W. Va., will expend \$25,000 to erect dormitory, kitchen and dining-hall at West Virginia Negro Institute; 45x138 ft.; L 52x52 ft.; semi-fireproof; slate roof; vacuum steam heat; H. Rus Warne, Archt., Charleston, W. Va. (Lately noted to receive bids until June 5.)

W. Va., Morgantown.—Morgantown Independent School Dist. votes May 28 on \$150,000 bonds to purchase site and erect school. Address Dist. School Trustees.

W. Va., Pennsboro.—Clay Dist. voted \$30,000 bonds to erect high school. Address Dist. School Trustees.

### STORES

Ala., Birmingham.—M. P. Phillips of Steele City Lumber Co. is reported to erect 3 store buildings; brick; cost \$15,000.

Ala., Birmingham.—Solon Jacobs, Prest. of Birmingham Slag Co., is reported to erect business building at 6th Ave. and 29th St.; cost about \$20,000.

Ala., Heflin.—J. M. Atkins' residence will be 60x60 ft.; brick; tar and gravel roof; Miller & Martin, Birmingham, lately noted as architects; owner may be addressed.

Ala., Hurtsboro.—T. W. Smith & Co., Garrard Bldg., Columbus, Ga., prepared plans for 2-story store building; 50x100 ft.; pressed brick; structural steel; plate-glass; tin roof.

D. C., Washington.—E. K. Fox, 1311 H St. N. W., will remodel building at Pennsylvania Ave. and I St. for stores and moving-picture theater. (See Theaters.)

Fla., Clearwater.—R. H. Padgett is reported to erect business building; 3 stories; brick; lower floor for stores; upper floors for offices or apartments.



Fla., Lakeland.—L. W. Cowdery is reported to erect 3-story brick building.

Fla., Leesburg.—G. W. Wrennick is erecting brick building on Main St.; 2 stories; 2 stores, 25x55 and 25x25 ft.; upper floor for 9 offices 12x18 ft.; Georgia pressed brick; asphalt roof.

Ga., Claxton.—C. M. Rushing and Mrs. Mary M. Kennedy will erect building to contain 3 stores.

Ga., Cordele.—A. and L. J. Robin are receiving bids to erect 2-story building; 50x119 ft.; brick.

Ga., Dalton.—Citizens' Building Co., capital stock \$20,000, incptd. by P. B. Trammell, Sr., E. P. Davis and W. C. Martin; will erect building.

Ga., Macon.—Dr. W. G. Lee will erect 4 business buildings; brick; site 107x174 ft.; cost about \$50,000.

Ga., Savannah.—W. A. Chaffee will erect store and apartment. (See Apartment-houses.)

Ky., Lexington.—Chas. H. Berryman, Mgr. of Elmendorf Farm, will erect store building; fireproof; at least 5 stories.

Ky., Lexington.—Warfield Gratz will erect 3-story business block.

Md., Baltimore.—Lander James, 1895 Whitmore St., let contract to Horace Ford, Knickerbocker Bldg., Baltimore, to erect 3 and 1-story brick building at 202 Garrett St.; 17.8x64.3; tin roof; steam heat; cost \$5500; Callis & Callis, Archts., 2055 Kennedy Ave., Baltimore.

Miss., Meridian.—A. H. Nolon will erect 3-story building.

Miss., Meridian.—L. W. Cochran will erect 2 business buildings.

Mo., Kansas City.—E. P. Pratt will erect store and flat building at 2401-09 E. 15th St.; 2 stories; brick and stone; cost \$40,000.

Mo., Kansas City.—J. C. Wirthman will expend \$200,000 to erect store, theater and office building. (See Theaters.)

Mo., Kansas City.—Saml. Goodman will erect store building at 1809 Grand Ave.; cost \$8500.

N. C., Greensboro.—Frank L. Devane of Brevard, N. C., is reported to erect business building on Davie St.; cost \$25,000.

S. C., Bennettsville.—A. J. Matheson will erect arcade building extending from Broad St. to Marlboro Ave. for stores and offices; 50x170 ft.

S. C., Orangeburg.—Adden Bros. will expend \$6000 to erect 6 stores; 20x60 ft. each; 1 story; ordinary construction; tin roof; plans and construction by owner. (Lately noted.)

Tenn., Johnson City.—Isaac Haar is reported to erect business building; 2 stories; cost several thousand dollars.

Tenn., Johnson City.—J. P. Sumners will erect 2-story business building; 15 rooms; cost \$10,000 to \$12,000.

Tenn., Nashville.—Harry Luck will remodel building at 183-87 8th Ave.; cost \$6500.

Tenn., Nashville.—Mrs. T. G. Moore will erect brick building at 20th Ave. and Acklen St.; cost \$4500.

Tenn., Nashville.—Caldwell & Chapman will rebuild structure at 216-20 4th Ave.; cost \$3500.

Tex., Beaumont.—Caswell estate is reported to erect 3 buildings at Main and Fannin Sts.; 1 two-story and 2 one-story structures; former for livery company, latter for mercantile purposes.

Tex., Brownwood.—F. R. Smith & Son will erect business building at Center Ave. and W. Lee St.; red Brownwood brick.

Tex., Brownwood.—Brook Smith Realty Co. will erect 2 business buildings; red brick.

Tex., Dallas.—Mrs. S. A. Danover will erect 1-story brick building at 1711 Pacific St.; cost \$7500.

Tex., Dallas.—W. E. Perry will remodel and erect addition to building at 894 2d Ave.; cost \$3000.

Tex., El Paso.—W. H. Rattenbury will erect brick building at 101 San Antonio St.; cost \$3000.

Tex., Houston.—John Mustachia will erect store and dwelling at Groves and Market Sts.; 2 stories; cost \$3000.

Tex., Kerrville.—Alfred Gilles Co., Archt., San Antonio, Tex., receives bids until May 26 to erect brick bank building, 9 stores and remodel buildings for Capt. Chas. Schreiner; plans and specifications at office of architect.

Tex., Paris.—Perkins Bros. Co. let contract to remodel store at cost of \$15,000; will also remodel building on Bonham St., connect same with main building, install heating, etc.

Va., Norfolk.—C. T. Saunders will erect

store building at Bowden's Ferry Rd. and 42d St.; cost \$4868.

Va., Richmond.—I. H. Kaufman and Raphael J. Levy will erect 3-story brick store at 200 E. Broad St.; cost \$19,400.

Va., Roanoke.—Jabbour Bros. are reported to have purchased property at 24 Campbell Ave. and contemplate erecting store building.

### THEATERS

D. C., Washington.—E. K. Fox, 1311 H St. N. W., will expend \$10,000 to remodel building for moving-picture theater and stores at Pennsylvania Ave. and I St.; 40x123 ft. and 20x116 ft.; fireproof and ordinary construction; slag roof; steam heat; electric lighting; Spelden & Spelden, Archts., 1403 New York Ave., Washington; owner taking sub-bids. (Lately noted.)

Fla., Miami.—Tatum Bros. Real Estate & Insurance Co. is reported to remodel theater at cost of about \$5000; day labor.

Md., Baltimore.—Garden Theater Co., C. E. Whitehurst, Prest., 210 E. Lexington St., is reported to have acquired site at S. E. Cor. Park Ave. and Clay St., to erect theater with entrance at 114 W. Lexington St., and having plans prepared by Thos. W. Lamb, 244 5th Ave., New York, for structure to seat 3000; cost \$300,000.

Mo., Kansas City.—J. C. Wirthman will expend \$200,000 to erect theater, store and office building; 114x229 ft.; 3 storerooms on Troost Ave. and 7 stores on 31st St.; 20-ft. marble lobby from Troost Ave. and 16-ft. marble lobby from 31st St. to theater; 2 entrances; offices above stores; theater to seat 1800; balcony at east end; stage 30x55 ft.; foyer in rear to have stairways on each side; interior decorations French greys, ivory and old gold; entire building reinforced concrete flat slab construction; tile and marble floors, with marble base; cream-enameled terra-cotta fronts; sidewalk lights around entire building; carrying capacity 5 stories; erect but 2 stories and basement at present; Smith, Rea & Lovitt, Archts., Kansas City. (Previously noted.)

Tex., Cleburne.—I. A. Walker, Archt., Dallas, Tex., states plans to erect theater for J. F. Green have been abandoned. (Lately noted.)

Va., Norfolk.—Arcadian Realty Co. has plans by Rosell Edward Mitchell, Norfolk, for theater on Granby St.; 55x185 ft.; 2 stories; seating capacity 2000; exterior of terra-cotta; fountain in lobby; cost, including site, \$140,000.

### WAREHOUSES

Ala., Birmingham.—Ingalls Iron Works, R. I. Ingalls, Prest., 2618 First Ave., will build warehouse of steel and reinforced concrete construction; are exceeding 300x100 ft.

Ark., Arkadelphia.—Arkadelphia Milling Co. has plans by Southwestern Engineering Co. to erect warehouse and storage-room; 2 stories; 100x64 ft.; reinforced concrete; certain-lead guaranteed roofing; cost \$17,000; lately noted. (See Machinery Wanted.)

Ga., Atlanta.—A. P. Morgan & Co. will erect warehouse; 1 story; brick.

Ky., Vine Grove.—Citizens' Loose-Leaf Warehouse Co., capital stock \$25,000, incptd.

Okl., Madill.—Madill Gin Co. will expend \$6000 to erect warehouse; 50x100 ft.; galvanized-iron roof. (Lately noted.)

S. C., Orangeburg.—Buckeye Cotton Oil Co., Cincinnati, O., is reported to erect warehouses.

Tenn., Memphis.—Southern Cotton Oil Co., main office, 24 Broad St., New York, will rebuild seed and hull storage warehouse at S. Bellevue Blvd. and Southern Ry. reported burned at loss of \$100,000; concrete construction; C. D. Jordan, Dist. Mgr.

Tex., El Campo.—El Campo Lumber Co. will erect sheds and warehouses; brick; fireproof; cost \$14,000.

Tex., Fort Worth.—B. K. Smith will erect iron and frame warehouse at 5th and Pecan Sts.; cost \$4000.

Tex., Fort Worth.—Mrs. L. F. Tidball will erect warehouse at 15th St. and Jennings Ave.; brick and tile; \$5000.

Tex., Lyons.—E. A. Matejowsky contemplates erecting warehouse.

Va., Norfolk.—B. and D. L. Margolis opened bids to alter warehouse on Granby St.; 3 stories; 60x170 ft.; mill construction; fire doors; elevators; partial steam heat; E. L. Myers, Norfolk, is lowest bidder at \$21,000; Ferguson, Calrow & Taylor, Archts., Norfolk. (Lately noted.)

Va., Suffolk.—George L. Bourm and H. B. Phillips are erecting peanut-storage warehouse.

Va., Williamsburg.—Bryant Timber Co., Franklin, Va., will build warehouse.

## BUILDING CONTRACTS AWARDED

### APARTMENT-HOUSES

Ala., Birmingham.—Steiner Bros. let contract to Carroll-Blake Construction Co., Birmingham, to erect apartment-house at 20th St. and 13th Ave.; 3 stories; 18 suites; brick; cost \$65,000; Harry B. Wheelock, architect, Birmingham. (Previously noted.)

Fla., Jacksonville.—Julian Prewitt let contract to H. F. McAden, Jacksonville, to erect apartment building at Margaret and Oak Sts.; 2 stories; brick; 62x102 ft.; cost \$20,000; Benjamin & Ball, Archts., Jacksonville.

Md., Baltimore.—David Selgel, 2216 Callow Ave., has plans by John Freund, Jr., Hoffman Bldg., Baltimore, for store and apartment at 1009-11 W. North Ave.; 3 stories; 74x86 ft.; cost \$8000; Edw. Watters & Co., Contrs., 500 N. Charles St., Baltimore.

Md., Baltimore.—Allston Realty Co. let contract to Chas. L. Stockhausen, Marine National Bank Bldg., Baltimore, to erect apartment-house on Charles St. near 32d St.; 3 stories; brick and concrete; cost about \$45,000; Parker, Thomas & Rice, Archts., Union Trust Bldg., Baltimore. (Lately noted.)

Mo., St. Louis.—R. Granneman let contract to B. J. Charleyville, St. Louis, to erect 2-story tenement-house at 2914 Ann St.; cost \$4000.

Mo., St. Louis.—Miss Sidonia E. Loehr of Hagerman, Fitzsimmons Co. will erect 2-family apartment-house at 4227 McKee Ave. near Tower Grove Ave.; dark-brown stock brick; Oriental style; stone porch, tile entrance; French plate-glass doors; tiled bathrooms; white-enamel medicine cabinets; plate-glass mirrors; Georgia marble sinks in kitchen; Emil R. Fendler, Contr., St. Louis.

Mo., St. Louis.—C. A. Sandquist will erect 2-story tenement-house at 3722 S. Spring St.; cost \$3500; construction by owner.

Mo., St. Louis.—R. Granneman will erect 2-story tenement-house at 2014 Ann St.; cost \$4000; B. J. Charleyville, Contr., St. Louis.

Mo., St. Louis.—R. & M. Gaffney, 3719 Pennsylvania Ave., have plans by and let contract to Henry Boehning, 3507 Alberta Ave., St. Louis, to erect tenement-house; 52x54 ft.; cost \$2500; ordinary brick construction; composition gravel roof; gas and electric lighting to cost \$100; concrete sidewalks to cost \$300; all subcontracts let. (Lately noted.)

Mo., St. Louis.—Almon A. Tucker, V. P. of Rosenthal-Sloan Millinery Co., is reported to erect apartment-house at 5890 Von Versen Ave.; 3 stories; 32x60 ft.; tile in halls; iron stairs with marble treads; O. F. Humphrey Realty & Bldg. Co., Contr.; Oliver S. Traber, Archt., Fullerton Bldg., both of St. Louis.

Tenn., Memphis.—J. Mainteul let contract to A. E. Crispin, Memphis, to erect brick flats at 395 Turley St.; cost \$5000.

Tenn., Memphis.—Cohen & Haup let contract to H. Dlugach, Memphis, to erect apartment-house at 428-32 Beale Ave.; cost \$6000.

Tex., Dallas.—W. A. Radford, Box 512, has plans by and let contract to Wm. Bryan to erect apartment-house; 12 rooms; 3 apartments; frame; ordinary construction; cedar shingle roof; Pittsburgh heaters; electric wiring; materials purchased. (Lately noted under Dwellings.)

Tex., Houston.—L. Kaiser, 1400 Rusk Ave., let all subcontracts to erect apartment-house at Rusk Ave. and Austin St.; 3 stories; 120x48 ft.; 15 apartments; cost (without mechanical equipment) \$32,500; ordinary construction; brick walls; wood joist floors; tar and gravel roof; steam heat to cost \$3000; install 3 dumb-waiters to cost \$250; Finger & Bailey, Archts., Union National Bank Bldg., Houston; general contract (lately noted) let to G. Hartman Contracting Co., 1004 Scanlan Bldg., Houston.

Va., Norfolk.—Mrs. Mary N. Thompson let contract to G. L. Collins, Norfolk, to erect 4-family apartment-house on 28th St.; cost \$5100.

Va., Richmond.—Enders & Dickinson, 1622 Hanover Ave., let contract to J. M. Delaney, 1916 Floyd Ave., Richmond, to repair apartment-house; 2 apartments; 6 and 7 rooms; ordinary construction; cost \$3000; tin roof; expend \$200 on improvements to heating plant; E. T. Woodall, Archt., 1834 W. Cary St., Richmond; subcontract let to Delaney & Gann, Floyd Ave., Richmond. (Lately noted under dwellings.)

### ASSOCIATION AND FRATERNAL

Ky., Louisville.—Y. M. H. A. let contract to A. Markham & Co., Louisville, to erect

building; cost (without mechanical equipment) \$70,000; ordinary construction; low-pressure gravity heat; Joseph & Joseph, Archts., Louisville. (Previously noted.)

N. C., Asheville.—Y. M. C. A. let contract to J. C. McPherson Plumbing Co. to install additional bathroom facilities; cost \$2000. (Lately noted.)

N. C., Asheville.—Elks' Home Co. will expend \$55,000 (cost without mechanical equipment) to erect home; fireproof; concrete roof; Webster modulating system of heating; electric lighting, complete installation; elevator not decided; Smith & Carrier, Archts., Asheville; contract (lately noted) let to North Carolina Development Co., Asheville. (See Machinery Wanted.)

Va., Roanoke.—Y. M. C. A. let contract at \$91,272 to Herrington & Normoyle, Roanoke, to erect building; 80x95 ft.; 5 stories; slag roof; also let contract at \$16,948 to Engleby & Bro. Co. for heating and plumbing, and at \$2450 to Engleby Electric Co. for electric wiring; both contractors of Roanoke; Louis E. Jallade, 37 Liberty St., New York, and H. M. Miller, Roanoke, Associate Archts. (Lately noted.)

### BANK AND OFFICE

Ala., Dothan.—W. L. Helms let contract to erect office and store building; lately noted. (See Stores.)

Ark., McGhee.—Dave Kimpel, Dermott, Ark., let contract to erect store and office building. (See Stores.)

Fla., Tampa.—Tampa Abstract & Title Co. (not Exchange National Bank as lately reported) let contract to Geo. W. Muller Bank Fixtures Co., Atlanta, to install marble fixtures, mahogany trimmings and mahogany furniture.

Ga., Atlanta.—Continental Trust Co. let contract to Geo. W. Muller Bank Fixture Co., Atlanta, for bank fixtures, interior finish, mahogany and metal furniture, cork floors, etc.

Ga., Manchester.—State Bank of Manchester let contract W. B. Fuller, Manchester, to erect bank building; shale press brick front; marble columns; tile floors; metal ceilings.

Md., Belair.—Farmers & Merchants' National Bank let contract to Love Bros., Belair, to erect bank building; 22x43 ft.; A. Murray Myers, Archt., Baltimore.

Tex., Houston.—Texas Co., W. A. Green, Treas., will let steel contract in about 10 days for 13-story office and store building at San Jacinto St. and Rusk Ave.; first story (29 ft. high) and second story will be used as stores; limestone to 11th floor; balance, terra-cotta; courts and rear walls faced with local light colored brick; Italian Renaissance; sidewalks surrounding property will be covered by portico of stone consisting of arches and Tuscan columns; tile roof for portico; entrance halls and vestibule finished in marble to ceiling line; corridors lined with marble to height of 7 ft. 6 in.; above this will be row of transoms; refrigerated drinking water for each floor; steam heat from oil-burning boilers in basement; pneumatic tubes; 3 passenger elevators, 1 to 1 overhead electric type; 2 sidewalk lifts; wireless equipment; Warren & Wetmore, Archts., New York; general contract (lately noted) let to Geo. A. Fuller Co., Chicago.

Tex., San Antonio.—Alamo National Bank is reported to have let contract to American Fixture Co., Kansas City, Mo., to remodel banking-rooms. (See Buildings Proposed, Tex., San Antonio.)

Va., Culpeper.—L. P. Nelson let contract to erect office and store building. (See Stores.)

Va., Washington.—Rappahannock National Bank let contract to Mims-Speake & Co., Luray, Va., to erect bank and office building.

### CHURCHES

Ky., Louisville.—St. Elizabeth's Roman Catholic Church, Rev. J. Assent, pastor, let following contracts for 76x132-ft. building: Cut stone, J. Diebold Sons, at \$8000; brick work, Lutz & Schmidt, Inc., at \$13,000; plastering, Campbell Bros., at \$9700; carpentry to H. Bloemer at \$7800; asbestos shingle roof, J. F. Wagner Sons; all of Louisville; reinforced concrete, W. Augustus, at \$8000; painting and glazing, W. B. Bell & Bro., at \$1000; Fred Erhart, Archt., 409 Norton Bldg., Louisville. (Previously noted.)

Md., Leonardtown.—St. Paul's M. E. Church, A. A. Lawrence, Chrmn. of Building Comm., let contract to Lafayette Graves, Laurel Grove, Md., to erect building; 46x51

ft.; cost \$6000; galvanized shingle roof; heating not determined; acetylene-gas lighting; Max C. Price, Archt., Atlantic Highlands, N. J. (Lately noted.)

Mo., Hope.—Presbyterian Church let contract at \$10,600 to James T. Holloway to erect building; buff brick; 48x90 ft.; full basement; auditorium and Sunday-school rooms to seat 550; furnishings to cost \$1000 additional.

W. Va., Charleston.—Methodist church let contract to Isaac Bros., Charleston, to erect stone building at Washington and Dickinson Sts.

### CITY AND COUNTY

Fla., Tampa.—City Hall.—City let contract at \$183,900 to McGucken & Hyer, Tampa, to erect city hall according to plans by Bonfoy & Elliott, Tampa; practically two buildings with alley or courtyard through center, bridged on second floor; one section to contain municipal offices, other police department offices; 3 stories; tower, 50 ft. square, 5 stories high, surmounted with dome and clock 4 ft. square; Doric style architecture; limestone columns; granite base; terra-cotta cornice; copper dome.

Ky., Hickman.—Jail.—Fulton County Commrs. will expend \$12,000 to erect jail; 50x75 ft.; fireproof; Cortwright metal shingle roof; steam heat to cost \$60; electric lighting; Pauly Jail Building Co., Archt., St. Louis, Mo.; general contract (lately noted) let to W. J. Spradlin Hickman, and to Stewart Iron Works, Cincinnati, for steel work.

Md., Baltimore.—Hospital.—City let contract to Chas. Herbold & Sons, 2768 W. North Ave., Baltimore, to erect building at Sydenham Hospital; 128x31 ft.; cost \$17,225; hollow tile construction; asbestos roof; steam heat and electric lighting; subcontracts not let; Parker, Thomas & Rice, Archts., Union Trust Bldg., Baltimore. (Previously noted.)

Md., Baltimore.—Hospital.—Board of Awards let contract to Wanner Steam & Hot Water Heating Co., 205 N. Calvert St., Baltimore, for ventilating main building at Bayview and P. J. Cushen, 218 St. Paul St., Baltimore, to alter baths at institution. (Lately noted.)

Okla., Tulsa.—Shelter-house.—Park Board let contract at \$5685 to Jack Loudon, Tulsa, to erect rustic shelter-house in Central and Owen parks; ordinary construction; shingle roofs; M. C. Cross, Archt., Nebraska Bldg., Tulsa. (Lately noted.)

Tenn., Chattanooga.—Police Department.—City let contract at \$6769 to P. O. Rogers & Sons, Chattanooga, to alter municipal building for police department; Snoddy & Bull, Archts., James Bldg., Chattanooga. (Lately noted.)

### COURTHOUSES

Miss., Meadville.—Franklin County Supvrs. let contract to Little-Clecker Construction Co., Anniston, Ala., to complete courthouse; cost \$40,000; Overstreet, Spencer & Paine, Archts., 601 Merchants' Bank Bldg., Jackson, Miss. (Lately noted.)

### DWELLINGS

Ala., Birmingham.—H. C. Lusk will erect two one-story frame dwellings at 48th St. and Palmer Ave. and 49th St. and Palmer Ave.; cost \$3000; contract let to Blomerly & Co., Birmingham.

Ala., Birmingham.—Borden Burr let contract to Jesse L. Burns, Birmingham, to erect residence; 2 stories; brick veneer.

Ala., Huntsville.—Miss McAnnelly let contract to Glidewell Bros., Huntsville, to erect residence; Edgar L. Love, Archt., 1314 Jefferson Bank Bldg., Birmingham. (Lately noted.)

Ala., Opelika.—Dr. T. L. Crossley let contract to B. E. Hudson, Opelika, to erect residence; 2 stories; brick veneer; colonial columns for front porch; promenade tiles on all porches; hardwood maple floors; cost \$7000.

D. C., Washington.—J. J. O'Donnell let all contracts to erect dwelling and store to cost \$15,000; lately noted. (See Stores.)

D. C., Washington.—John J. Meehan let contract to J. B. Gibbs, 1623 L St. N. W., Washington, to erect 2-story brick dwelling at 1604 3d St. N. W.; cost \$3525; G. W. Holden, Archt.

D. C., Washington.—Chas. E. West let contract to W. C. Blundon, 2217 1st St. N. W., Washington, to erect 6 two-story brick dwellings at 1335-45 Kenyon St.; cost \$30,000; L. T. Williams, Archt.

D. C., Washington.—J. M. Carlisle will expend \$9000 to remodel dwelling at 30th and R St. N. W.; ordinary construction; tin roof; hot-air heat; electric lighting; W. B. Wood, Archt., 816 Connecticut Ave. N. W.,

Washington; contract (lately noted) let to Page Construction Co., 304 Hibbs Bldg., Washington.

Fla., Jacksonville.—H. S. Griggs let contract to Florida Schub Concrete Construction Co., Jacksonville, to erect residence; 27x50 ft.; garage 16x18 ft.; cost \$10,000.

Ga., Albany.—Mrs. G. W. Owens awarded contract to erect 2 bungalows; frame and stucco; cost \$3000; foundations now being laid; plans by M. J. Reidy, Albany.

Ga., Atlanta.—J. B. Daniel let contract H. W. Nichols & Co., Atlanta, to erect 2 residences; 2 stories; brick veneer; cost \$16,000.

Ga., Atlanta.—J. C. Symmes let contract McDaniel & Calmes, Atlanta, to erect residence; 2 stories; frame; cost \$6500.

Ga., Atlanta.—Victor R. Smith let contract to T. T. Flieger, 608 Walton Bldg., Atlanta, to erect residence; 2 stories; brick; green tile roof; hot-water heating, oak and pine flooring; plans by Hentz & Reid, Candier Bldg., Atlanta. (Lately noted.)

Md., Baltimore.—John Miller, Montford Ave. and Gay St., is having plans prepared by S. Gordon Hopkins, Maryland Ave., Baltimore, for 11 dwellings on Montford Ave. near Gay St.; 2 stories; iron-spot brick; 13x70 ft.; cost \$12,000; Chas. E. Rozier, contractor, 1624 E. Preston St., Baltimore.

Md., Baltimore.—J. L. E. Abbott, 1818 Ruxton Ave., has plans by and let contract to J. F. Hardy, 4200 Groveland Ave., Baltimore, for cottage on Garrison Ave. near Alto Ave.; 25x40 ft.; ordinary frame construction; slate roof; steam heat; electric lighting; cost \$1800.

Md., Baltimore.—Geo. R. Bullen, 407 N. Howard St., has plans by and let contract to L. F. Gerber to erect dwelling on Maine Ave. near Oakfield Ave.; 2½ stories; 30x32 ft.; slate roof; cost \$3000.

Md., Baltimore.—Hampton M. P. Church let contract to J. A. McCauley, 3515 Falls Rd., Baltimore, to erect parsonage; 22x64 ft.; cost \$4000; F. E. Beall, Archt., 306 St. Paul St., Baltimore.

Md., Chevy Chase.—W. B. Greeley let contract to Wm. F. Harper, 1622 6th St. N. W., Washington, D. C., to erect residence; 26 ft. 6 in. by 33 ft.; cost \$5000; ordinary construction; slate roof; hot-water heat (contract, including plumbing, let to Chas. T. King & Co., 343 N. Calvert St., Baltimore, Md.); electric lighting; A. H. Sonnemann, Archt., 1331 H St. N. W., Washington, D. C.; all other contracts let. (Lately noted.)

Mo., St. Louis.—Walter W. Candy will expend \$40,000 (cost without mechanical equipment) to erect dwelling; 2½ stories; 36x80 ft.; Mauran, Russell & Crowell, Archts., Chemical Bldg., St. Louis; contract (lately noted) let to Hoffman Contracting Co., St. Louis.

N. C., Winston-Salem.—C. E. Fetter let contract to W. H. Fetter, Winston-Salem, to erect residence; 2 stories; 8 rooms; frame; shingle roof; electric and gas lighting; cost \$3500.

N. C., Winston-Salem.—S. C. Ogburn, 511 Liberty St., let contract to J. L. Crouse to erect dwelling; 40x56 ft.; ordinary construction; asbestos roof; heating not determined; electric lighting; cement sidewalks; cost \$6500; Chas. K. Bryant, Archt., Richmond. (Lately noted.)

S. C., Goldville.—Banna Mfg. Co. let contract to erect 10 frame houses for operatives. (See Textile Mills.)

Tenn., Memphis.—Allenberg & Meister let contract to Memphis Building Co., Memphis, to erect 2 residences on McNeill St.; cost \$10,000.

Tenn., Memphis.—Hugh Wynne let contract to A. B. Laning, Memphis, to erect 2-story brick-veneer dwelling at 1090 Eastmoreland St.; cost \$6500.

Tenn., Memphis.—Robert Galloway let contract to Roush, Hobbs & Bailey, Memphis, to erect residence at 1675 Overton Park Ave.; cost \$4000.

Tenn., Memphis.—W. E. Gage let contract to H. H. Higbee, Memphis, to erect 2 residences at 2058 Higbee Ave. and 2607 Cowden Ave.; cost \$5200.

Tenn., Memphis.—J. T. Harrington let contract to Foster & Frances, Memphis, to erect residence at 1163 Faxon Ave.; cost \$4000.

Tex., Dallas.—John Wilkins, 3605 Turtle Creek Blvd., let contract to Walter Whitely, Gilbert St., Dallas, to erect dwelling; 9 rooms; cost \$11,000; hollow-tile construction; shingle roof; hot-air heat to cost \$250; cost of lighting \$500; H. B. Thomson, architect, Wilson Bldg., Dallas. (Lately noted.)

Tex., El Paso.—J. M. Murry will expend \$4500 to erect 6-room dwelling; ordinary brick construction; Rextile shingle composition roof; hot-air heat to cost \$250; electric

lighting; cement sidewalks; let contracts to W. C. Taylor for masonry and Dan L. Carson for cement work, both of El Paso. (Mayfield Building & Improvement Co., El Paso, lately noted to erect dwelling for Mr. Murry.)

Tex., Luling.—Abe Fink let contract to erect residence.

Tex., San Antonio.—Leon Rosenfeld let contract to Slaughter & Shepherd, San Antonio, to erect residence; 32x62 ft.; mill construction; Spanish tile roof; hot-water heat; cost \$5700; Ernest P. Behles, Archt., San Antonio.

Va., Luray.—Everette M. Berry let contract to Mims-Speake & Co., Luray, to erect bungalow.

Va., Norfolk.—John G. Tilton let contract to J. T. Lenoir, Norfolk, to erect residence at Graydon Ave. and Theford St.; cost \$8500; Ferguson, Calrow & Taylor, Archts., Norfolk.

Va., Petersburg.—Harvey Seward let contract to J. G. Keeler & Son, Petersburg, to erect residence; 64x60 ft.; cost (without mechanical equipment) \$38,000; ordinary construction; slate roof; hot-water heat; electric lighting; Carneal & Johnston, Archts., Richmond. (Lately noted.)

Va., Richmond.—J. P. Taylor let all contracts to erect residence (lately noted) to cost \$15,000.

Va., Rileyville.—L. P. Good let contract to Mims-Speake & Co., Luray, Va., to erect residence.

Va., Williamsburg.—Bryant Timber Co., Franklin, Va., will build dwellings for knitting mill operatives.

### GOVERNMENT AND STATE

D. C., Washington.—Hospital.—Geo. E. Wyne, 322 Munsey Bldg., Washington, Gen. Contr. for Columbia Hospital for Women, let following sub-contracts: Dietrich Bros., Pleasant and Davis Sts., Baltimore, ornamental iron, and to Soper & McDonald, 316 Main St. N. W., Washington, for erecting same; Standard Engineering Co., Woodward Bldg., Washington, plumbing, heating and refrigerating; L. E. Murtaugh, 1513 25th St., Washington, brick work and fireproofing; James Elgar, 103 Park Ave., New York, mill work, erecting same and painting interior and exterior of building; general contract price (lately noted) \$212,900.

Ga., Manchester.—Postoffice.—J. P. Corley Lumber Co. has contract to erect building for postoffice.

La., Monroe.—Reformatory.—Louisiana Training Institute will expend \$42,150 (cost without mechanical equipment) to erect 2 buildings for dormitories for boys; 78x40 ft.; fireproof; green slate roof; vacuum heating plant; Smith & Barthel, Archts., Monroe; general contract (lately noted) let to Caldwell Bros., Abbeville, La.; heating and plumbing contract to Home Heating & Plumbing Co., Monroe, at \$7423.

Md., Owings Mills.—Barn.—Maryland Training School for Feeble-Minded let contract to Cox Bros., Pikesville, Md., to erect barn; Elliott & Emmart, Archts., Union Trust Bldg., Baltimore. (Previously noted.)

Mo., Farmington.—Hospital.—State Hospital No. 4 let contract to McCarthy Constr. Co., Farmington, for hospital for tubercular patients; fireproof, reinforced-concrete construction; asbestos shingle roof; low-pressure steam heat; electric lighting; cost (without mechanical equipment) \$23,216 H. H. Hohenschild, Archt., 210 Navarre Bldg., St. Louis, Mo. (Lately noted.)

Mo., Jefferson City.—Capitol.—Albes & Godfrey, Brooklyn, N. Y., have contract for ornamental iron and bronze work on State Capitol, for which John Gill & Sons, Cleveland, O., are general contractors; plans by Tracy & Swartwout, 244 5th Ave., New York, call for structure 437x200 ft.; Missouri stone construction; cost \$2,710,000. (Other contracts previously noted.)

N. C., Winston-Salem.—Postoffice.—Wise Granite & Construction Co., Richmond, Va., Gen. Contr. for postoffice, let following sub-contracts: Limestone, Ingals Stone Co., Bedford, Ind.; granite, Lemmerman & Hoffman Granite Co., Mt. Airy, N. C.; structural steel, Richmond (Va.) Structural Steel Co.; plumbing and heating, S. H. Guza Co., Richmond, Va.; ornamental iron, Danville Foundry & Machine Co., Danville, Pa.; electric work, Strong Electric Co., Philadelphia; mill work, Stillwater Mfg. Co., Stillwater, Minn.; painting, J. H. Morris & Co., Richmond; marble and tile, Hilgartner Marble Co., 223 N. Calvert St., Baltimore; reinforcing steel, Trussed Concrete Steel Co., Detroit; hardware, Henry Keldel Co., 405 W. German St., Baltimore. (Previously noted.)

S. C., Camden.—Postoffice.—Treasury Dept.,

Oscar Wenderoth, Supervising Archt., Washington, D. C., let contract at \$34,924 to Algonon Blair, Montgomery, Ala., to erect postoffice; 1 story and basement; 3400 sq. ft. ground area; non-fireproof except first floor; stone and stucco facing; tin roof. (Lately noted.)

Tenn., Pulaski.—Postoffice.—Treasury Dept., Oscar Wenderoth, Supervising Archt., Washington, D. C., let contract to Wharton Building & Supply Co., 910 Chemical Bldg., St. Louis, to erect postoffice; one story and basement; stone, terra-cotta and brick facing; 3700 sq. ft. ground area; tin and composition roof; general contractor is receiving sub-bids on work and building materials.

Tex., Bryan.—Postoffice.—Government let contract to Daniel T. McCarthy, 411 Walnut St., Philadelphia, to erect U. S. postoffice; 54x40 ft.; 1½ stories and basement; semi-fireproof; cost (without mechanical equipment) \$45,000; steam heat to cost \$2200; electric lighting to cost \$900; cement sidewalks; Mr. McCarthy lately noted as lowest bidder. (See Machinery Wanted.)

Va., Kenbridge.—Postoffice, etc.—Samuel J. Castle, Kenbridge, has contract for U. S. postoffice and store building.

### HOTELS

Ala., Fayette.—W. A. & Z. F. Graham are reported to have let contract to Columbus Brick Co., Columbus, Miss., to erect proposed hotel; 2 stories; brick; 5760 sq. ft. ground area; pitch and gravel roof; natural gas heating; cost \$10,000 to \$12,000.

Ark., Paragould.—Paragould Hotel Co. let contract to Jones & Harrington, Fort Smith, Ark., to erect hotel; 5 stories; cost, including equipment, \$75,000; Harker & Calmes, Archt., Memphis, Tenn. (A company previously noted organized to erect hotel.)

La., Winnsboro.—Carl Shipp let contract to Nick Meyer (for labor only) to erect hotel; 3 stories; brick; plastered; steel ceiling; tile or Carey's roofing; heating not decided; electric lighting; tile or concrete sidewalks; cost \$20,000. (See Machinery Wanted.)

Mo., Kansas City.—Muehlbach Estate Co. let contract to Westlake Construction Co., St. Louis, for entire erection of hotel; 138x158 ft.; 11 stories and basement; 429 rooms, each with bath; fireproof, class A; steel frame; brick and stone; tile and concrete floors; cost (without mechanical equipment) \$1,200,000; cost of furnishings, \$250,000; Norton Bros., excavating contractors, Kansas City; Kansas City (Mo.) Structural Steel Co., contractor for steel work; Holabird & Roche, Archts., Monroe Bldg., Chicago; financed by Real Estate Loan Dept. of Mercantile Trust Co., St. Louis. (Lately noted.)

Tex., Dallas.—Mrs. G. W. Powers will erect 4-story-and-basement fireproof hotel at Main and Harwood Sts.; reinforced concrete; probably 60 rooms, each with bath; cost \$80,000; Warren Heaton, Contr., Dallas; H. A. Overbeck, Archt., Dallas; will be leased to B. F. Galloupe.

### MISCELLANEOUS

Ala., Birmingham.—Grandstand.—Amusement Park Co. let contract to erect grandstand, etc. (See Miscellaneous Enterprises.)

D. C., Washington.—Orphanage.—St. John's Church let contract to Boyle-Robertson Construction Co., Union Trust Bldg., Washington, to erect 3-story brick orphanage building at 20th and F Sts.; cost \$54,000; Lynch Luquer, Archt.

Ky., Bellevue, P. O. at Newport.—Grandstands.—Kansas City Federal League Club, C. C. Madison, Pres., Kansas City, Mo., is reported to have acquired Spinks' Park property at Patchen and Fairfield Aves. and to have let contract to Louis Helster, Cincinnati, to erect grandstands; wood construction at present, to be replaced with iron and concrete next year.

Tenn., Chattanooga.—Clubhouse.—Chattanooga Golf and Country Club will expend \$45,000 (cost without mechanical equipment) to erect clubhouse; 72x209 ft.; semi-fireproof; slate roof; steam heat to cost \$5000; electric lighting to cost \$2000; Chas. Bearden, Chattanooga, and W. T. Downing, Grant Bldg., Atlanta, Ga., Archts.; roofing contract let to Mountain City Store & Mfg. Co., Chattanooga; mechanical equipment and plumbing not let. (Lately noted letting general contract to Geo. Becking, Chattanooga, Tenn.)

Tex., San Antonio.—Clubhouse.—Jewish Harmony Club, Jesse Oppenheimer, Chrmn. of Building Comm., let contract to J. Harvey, San Antonio, to erect clubhouse; 66x126 ft.; 2 stories; reinforced concrete; gravel roof; steam heat; Ernest P. Behles, Archt., Hicks Bldg., San Antonio. (Lately noted to cost \$45,000.)



## RAILWAY STATIONS, SHEDS, ETC.

Ala., Troy.—Atlantic Coast Line Ry., E. B. Pleasants, Ch. Engr., Wilmington, N. C., let contract A. M. Walkup, Richmond, Va., to erect station. (Lately noted.)

Ga., Lawrenceville.—Seaboard Air Line Ry., W. D. Faucette, Ch. Engr., Norfolk, Va., let contract to A. M. Walkup Co., Richmond, Va., to erect passenger station; construction begun. (Lately noted to cost \$10,000.)

## SCHOOLS

Ark., Argenta.—City let contract to remodel Chelennin School at cost of about \$20,000; C. L. Thompson, Archt., Little Rock. (Lately noted.)

Fla., Plant City.—Hillsboro County Board of Education, Tampa, let contracts to erect schools at Plant City and Springhead; Dudley & Carlton at \$33,218 for former and R. E. Fletcher at \$5058 for latter; both contractors of Plant City; former structure will be of Legg rough-texture brick with Sible sash brick trimmings; wall and partitions of sand lime brick from Roux Composite Brick Co.'s plant; cost of heating plant \$3000; equipment to cost \$5000; Willis R. Biggers, Archt., Tampa. (Lately noted.)

Fla., Key West.—School Board let contract to Sawyer & Sawyer, Key West, to erect 5 additional rooms to Harris High School; will raise roof and provide 5 additional rooms on second floor.

Fla., Ruskin.—Ruskin College selected site for proposed fine arts building; 44x36 ft.; studios on first floor; auditorium on second floor; seating capacity 300; 20-ft. stage and dressing-rooms; cement dash and shingle finish; overhanging eaves; ordinary construction; acetylene heating and lighting; cost \$7000; Ray G. Edwards, Archt. and Contr.; address proposals to A. D. Miller, Ruskin. (See Machinery Wanted.)

Fla., Springhead.—Hillsboro County Board of Education, Tampa, let contract to erect school to R. E. Fletcher, Plant City. (See Fla., Plant City.)

Ga., Albany.—Board of Education, Jos. Ehrlich, Chrmn. of Building Comm., let contract to Little-Clecker Construction Co., Anniston, Ala., to erect school; cost (without mechanical equipment) \$29,990; cost of heating \$2050; Sayre & Baldwin, Archts., Anderson, S. C., and Raleigh, N. C. (Lately noted.)

Ga., Atlanta.—John R. Thompson let contract Chas. W. Bernhardt, Atlanta, to alter building; cost \$20,000.

Ga., Columbus.—City will expend \$15,000 to erect grammar school; 87x74 ft.; ordinary construction; asbestos roof; steam heat to cost \$2500; electric lighting; T. F. Lockwood, Archt., Columbus; contract (lately noted) let to M. C. Barlow, Columbus.

Md., Easton.—School Comms. let contract at \$17,500 to U. G. Ross & Bro., Easton, to erect addition to high school; 7 rooms; brick; slate roof; steam heat; Frank Ross, Archt., Easton. (Lately noted.)

Miss., Hattiesburg.—Mississippi Normal College let contract at \$58,470 to Burkes Construction Co., Hattiesburg, for brick work on dormitory; 3 stories; to S. A. Carnes, Hattiesburg and Laurel, Miss., for heating, lighting and plumbing, and to General Electric Co. for electric fixtures; brick; steel frame; reinforced concrete floors; hollow tile partitions; slate roof; steam heat; R. H. Hunt, Archt., Chattanooga, Tenn. (Lately noted.)

Mo., Cape Girardeau.—Board of Education will expend \$55,000 (without mechanical equipment) to erect school; 4 stories; 68x125 ft.; fireproof; Barrett's specification roof; direct steam and blast ventilation system of heating to cost \$10,000; electric (outside power) lighting; J. H. Felt & Co., 800 Grand Ave. Temple, Kansas City, Mo., Archts.; contract lately noted let to Vogelsang Bros. Construction Co., Cape Girardeau.

Mo., Kansas City.—Board of Education let contracts for interior work in Sweeney School at 4th St. and W. Prospect Pl. as follows: Heating and ventilating at \$16,976 and plumbing and drainage at \$8454 to MacMahon Plumbing & Heating Co.; electric wiring at \$3850 to Burkholder Electric Co., both of Kansas City; automatic temperature regulation system at \$2274 to Johnson Service Co.; Chas. A. Smith, Archt., 602 Finance Bldg., Kansas City. (Previously noted.)

Mo., St. Louis.—Mrs. E. Senner let contract to erect store and college building. (See Stores.)

Mo., St. Louis.—Holy Cross Lutheran congregation (not Holy Cross German Catholic Church, as lately reported) let contract in February to Kellermann Contracting Co., Roe

Bldg., St. Louis, to erect school; 100x116 ft.; cost (without mechanical equipment) \$50,000; ordinary construction; gravel roof; steam heat to cost \$4000; electric lighting; Chas. F. May, Merchants' Laclede Bldg., St. Louis, Archt. (Previously noted.)

N. C., Wilmington.—Board of Education let contract at \$6800 to John Thomas, Wilmington, to erect school; at or near Delgado; 3 rooms; brick, with library and office; J. F. Gause, Archt., Wilmington; also accepted plans by H. E. Bonitz, Wilmington, for Williston school; brick; 9 rooms.

Tenn., Nashville.—George Peabody College for Teachers, Bruce R. Payne, Pres., let contract to Hedden Construction Co., 1 Madison Ave., New York, to erect social-religious and psychology buildings; latter to be 66x100 ft.; 2 stories and basement; cost \$65,000; former 120x144 ft.; fireproof; slag roof; cost \$262,000; Ludlow & Peabody, Archts., 101 Park Ave., New York. (Previously noted.)

Tex., Troup.—City let contract to erect proposed high school to cost about \$20,000. Address The Mayor.

Va., Petersburg.—School Board let contract to M. P. Andrews & Co., Petersburg, to erect school; 8 classrooms, offices, etc.; cost (without mechanical equipment) \$19,784; fireproof hall and furnace-room; slate and tin roof; hot-air heat to cost \$2300; electric lighting to cost \$150; Ferguson, Calrow & Taylor, Archts., Norfolk. (Lately noted having \$25,000 appropriation.)

Va., Richmond.—A. M. Walkup Co., Richmond, has contract to erect school to cost \$140,000. (School Board, C. P. Walford, clerk, lately noted to receive bids until May 8 to erect school on Floyd Ave.)

## STORES

Ala., Birmingham.—S. B. Marks let contract to Hugger Bros., Birmingham, to repair building lately burned at 2017 3d Ave.; cost \$7500.

Ala., Birmingham.—Sam Earle and others are reported to have let contract to Evans Bros. Construction Co., Birmingham, to erect building on 1st Ave.; 5 stories and 10-ft. basement; 50x140 ft.; brick; ornamental terra-cotta front; 2 elevators; cost \$75,000 to \$100,000; Miller & Martin, Archts., Birmingham. (Lately noted.)

Ala., Dothan.—W. L. Helms let contract to H. T. Crawford to erect store and office building; 22x60 ft.; 2 stories; ordinary construction; tin roof; electric lighting. (Lately noted.)

Ark., McGhee.—Dave Kimbel, Dermott, Ark., let contract to erect store and office building; 2 stories; brick.

D. C., Washington.—J. J. Brosnan let contract to W. E. Garner & Son, 623 M St. S. W., Washington, to erect 2-story brick store building at 504-06 4 1/2 St. S. W.; cost \$5200; Chas. J. Garner, Archt., 617 Quincy St. N. W., Washington.

D. C., Washington.—G. Ferraci let contract to Wm. Simpson, 1419 Fox Hall Rd. N. W., Washington, to erect 2-story brick store building at 560 Connecticut Ave.; cost \$8450.

D. C., Washington.—Wm. Gibson let contract to M. A. Weller, 602 F St. N. W., Washington, to erect store building at 917 G St. N. W.; cost \$15,000; N. T. Haller, Archt., Corcoran Bldg., Washington.

D. C., Washington.—J. J. O'Donnell will expend \$15,000 to erect store and dwelling; 20x80 ft.; 3 stories and basement; fireproof and ordinary construction; tin roof (contract let to Lyon, Conklin & Co., Baltimore); steam heat; electric lighting; A. B. Mullett & Co., Archts., Union Trust Bldg., Washington; all subcontracts are let to local people; general contract (lately noted) let to Davis Construction Co., Union Trust Bldg., Washington.

Fla., Fort Meade.—W. H. Brown has plans by and let contract to S. G. Bailey to erect store; 50x60 ft.; tin roof; electric lighting; cost \$3500. (Lately noted.)

Ga., Gainesville.—B. H. Merck will erect wholesale building; 90x150 ft.; Levi Prater, Contr., Gainesville.

Ga., Savannah.—Jeny George let contract to W. A. Chafee, Savannah, to remodel interior of ice-cream parlors; provide ballroom with balcony; tile floor; additional lights; excavate for basement, etc.

Ga., Savannah.—M. Duther let contract to W. A. Chafee, Savannah, to erect store; 3 stories; 90 ft. deep; white enamel brick; elevators.

Ga., Savannah.—Max Sutker let contract to Walter Chafee, Savannah, to erect store building on Broughton St. near Barnard.

La., Winterville.—J. T. Pittard let contract to J. M. Watson, Winterville, to erect

store building; fireproof; tar and gravel roof; cost \$7500.

Md., Baltimore.—David Seigel, 2216 Callow Ave., let contract to erect store and apartment-house. (See Apartment-Houses.)

Mo., St. Louis.—Mrs. E. Senner let contract to C. L. Frederick, St. Louis, to erect store and college building at 5176-78 Easton St.; cost \$3000.

N. C., Lexington.—H. B. Varner let contract to erect building for store, etc. (See Miscellaneous Enterprises.)

Tenn., Cleveland.—C. H. Hardwick has plans by and let contract to G. W. Humphreys, Cleveland, to rebuild store; 33 1/2 x 65 ft.; ordinary construction; tin roof; stoves; electric lighting; cost \$8000. (Lately reported damaged by fire.)

Tenn., Johnson City.—Hart & Houston will erect store building on E. Main St.; 3 stories and basement; plate-glass front on second floor; 66x90 ft.; gravel roof; cost \$25,000; probably hydraulic elevator; cost of heating plant \$2000; Chas. Mitchell, Archt.; contract let to J. W. Bostwick.

Tenn., Memphis.—J. R. Pepper let contract to E. J. Pearson, Memphis, to construct show window on Main St.; cost \$4000.

Tex., Brownwood.—Brooke Smith let contract to erect 2 business buildings; 1 story; foundation to support 2 additional stories; brick; concrete floors; plate-glass front.

Tex., Lyons.—B. L. Levinson let contract to erect brick store building; 32x90 ft.; plate-glass front; show windows.

Tex., Waco.—Ray Rowell let contract to J. S. Harrison & Son, Waco, to erect business building; 2 stories and basement; 50 1/2 x 165 ft.; cost \$20,000.

Va., Albemarle.—Chas. S. Barrow let contract to Samuel J. Castle, Kenbridge, Va., to erect 2 stores, 24x80 ft.; 1, 50x80 ft.; 1, 40x80 ft., and 1, 24x90 ft.; ordinary brick construction; metal roof; elevator lift 7x12 ft., with capacity for 1500 lbs.; J. E. Painter, Kenbridge, Va., brick contractor. (Lately noted.)

Va., Culpeper.—L. P. Nelson let contract to J. E. Walters to erect store and office building; 60x90 ft.; ordinary construction; cost \$10,000; tin roof; J. T. Skinner, Richmond, Archt. (Miller Mfg. Co. lately noted as preparing plans.)

Va., Kenbridge.—Samuel J. Castle, Kenbridge, has contract for store, etc. (See Government and State.)

## RAILROAD CONSTRUCTION

## RAILWAYS

Fla., Lake Helen.—Concerning the movement for an electric interurban railway, Sol. E. Carmichael says it is proposed to build from New Smyrna via Lake Helen to Enterprise or De Land, 25 mi. Company not yet incptd. Route nearly level. Construction would not be difficult.

Ky., Lexington.—Mason, Hanger & Carmichael are reported given a contract by the Louisville & Nashville R. R. to build a cut-off about 3 mi. long from its line at Woods, near Lexington, to the Lexington & Eastern at Montrose.

Ky., Middlesboro.—Cincinnati capitalists are reported behind the plan to build an electric interurban railway in and near Middlesboro. There are 5 mi. of line now proposed to reach mines in the vicinity. Fred Moeman of the Tri-State Realty & Insurance Co. obtained the city franchise. Work is to start within six months.

La., Shreveport.—North Louisiana Interurban Ry. Co. expects to begin construction of its projected line from Shreveport to Monroe, La., 90 mi., about June 1. Major A. B. Blevins is Pres.

Mo., Kansas City.—Kansas City Connecting Ry. Co. has applied to the Missouri Public Service Commission for authority to build about 5 1/2 mi. of additional terminal tracks. Address Union Stock Yards Co., Kansas City.

Md., Mechanicsville.—J. Spence Howard, 11 E. Lexington St., Baltimore, has made survey for a railroad from a connection with the Washington, Pgotmac & Chesapeake Ry. to Esperanza, Md., about 30 mi. Work may soon be started. W. Bernard Duke, 113 W. German St., Baltimore, and others are interested.

Mo., Grays Point.—St. Louis Southwestern Ry., says a report, will issue \$233,000 of bonds for enlarging the yards at Grays Point. C. D. Purdon, St. Louis, is Ch. Engr.

Mo., Rolla.—J. Ellis Walker, Gen. Mgr., and others are seeking financing for the Rolla, Ozark & Southern Ry., which they

Va., Petersburg.—Lovenstein Bros. let contract to Haynes Bros., Chatham, Va., to erect department store building on Sycamore St.; 4 stories and basement; terra-cotta front; 100 ft. deep; arcade. (Lately noted.)

Va., Richmond.—Kaufman & Levy let contract to J. C. Beazley Co. to erect store building at Broad and 2d Sts.; cost (without mechanical equipment) \$25,000; mill construction; slag roof; steam heat; electric lighting; prism sidewalk lights; electric elevator; Chas. K. Bryant, Archt., Richmond. (Lately noted.)

Va., Roanoke.—Jefferson Street Co. is reported to have let contract to J. P. Pettyjohn & Sons, Lynchburg, Va., to erect building to be occupied by S. H. Helronimus & Co. and Thurman & Boone Co.; 4 stories; fireproof; gray brick; elevators; cost \$120,000, exclusive of heating and lighting contracts yet to be let; site 100x170 ft. (Lately noted.)

## THEATERS

Ala., Birmingham.—Amusement Park Co. let contract to erect motion-picture theater, etc. (See Miscellaneous Enterprises.)

N. C., Lexington.—H. B. Varner let contract to W. Lee Harbin, Lexington, to erect building for theater, store, etc.; lately noted. (See Miscellaneous Enterprises.)

## WAREHOUSES

Md., Baltimore.—Wm. D. Gude & Co., 24 E. Perry St., is reported to have let contract to erect warehouse at 109-13 South St.; 4 stories; brick; 60.5x76 ft.; slag roof; cost \$20,000. (Lately noted under Stores.)

Md., Baltimore.—Himbalt Realty Co. let contract to Cowan Building Co., 106 W. Madison Ave., Baltimore, to erect warehouse at 116-122 Harrison St.; 5 stories; brick and reinforced concrete; 50x115 ft.; cost \$25,000; Otto G. Simmonson, Archt., Maryland Casualty Tower Bldg., Baltimore. (Lately noted.)

Mo., Kansas City.—William Volker let contract to Alexander Kingshorn, Kansas City, to erect warehouse at 200-02 Main St.; 6 stories; reinforced concrete; cost \$65,000.

Tenn., Nashville.—Spurlock-Neal Co. let contract to S. H. Bowers to erect warehouse; 68x73 ft.; mill construction; Barrett's specification roof; steam heat; electric lighting; electric elevator of 2000 lbs. capacity; cost \$25,000; C. K. Colley, Archt., 33 Life & Casualty Bldg., Nashville. (Lately noted.)

have planned to build from Rolla to Annett, Mo., 18 mi., through level country. E. C. Comstock is Pres.

N. C., Elkin.—The Elkin & Alleghany R. R. is to be completed from Doughty to Sparta, N. C., 23 mi. I. M. Taylor & Co. of New York, Boston and Philadelphia will finance it. C. B. Penny, representing the firm, will be Gen. Mgr. J. A. Mills, Raleigh, N. C., is Pres.

Okla., Oklahoma City.—Plans of the Oil Belt Traction Co. provide for various lines of railway which will reach Blackwell, Newkirk, Ponca City, Pawhuska, Tulsa, Bartlesville, Nowata, Vinita, Miami, Grove, Jay, Westville, Stilwell, Tahlequah, Muskogee, Okmulgee, Shawnee and Oklahoma City in Oklahoma, besides Fort Smith, Ark. G. L. Wallace, 1015 Colcord Bldg., Oklahoma City, is Pres.

Tenn., Nashville.—Clopton C. Thomas, Corinth, Miss., Secy. Nashville, Shiloh & Corinth Ry., says that the present organization is only temporary. Allen W. Jones of Augusta, Ga., is Pres. Others are J. B. Walker, J. D. Daniel and George S. Bruce. Projected line is 150 mi. from Nashville to Corinth via Centerville, Linden, Waynesboro and Savannah, Tenn. Permanent organization will be made when several bond elections necessary have been held.

Tex., Fort Worth.—It is announced that contract has been closed by the Fort Worth-Denton Traction Co. with Stone & Webster of Boston under which the latter will acquire all the rights of way and franchises, together with survey and \$75,000 bonus, for the construction of the proposed interurban electric railway from Fort Worth to Denton, Tex., about 34 mi. The agreement requires that construction shall begin as soon as the new owners can assemble the necessary forces. E. T. Moore, Dallas, Tex., is manager for Stone & Webster, and G. H. Clifford, Fort Worth, is vice-president and general manager of the firm's properties there.

Tex., Galveston.—Gulf, Colorado & Santa Fe Railway budget provides for the year total expenditures of \$380,784, including the

following: Bridges, trestles and culverts, \$54,764; sidings and spurs, \$7190; terminal yards, \$10,410; heavier rails, \$124,340; track fastenings, etc., \$48,680; frogs and switches, \$16,510. F. G. Pettibone is V.-P. and Gen. Mgr. at Galveston, Tex.

Tex., Laredo.—Engineers who are surveying for a railroad along the Rio Grande valley are reported working for interests back of the Rio Grande & Eagle Pass Ry., which runs from Laredo to Minera, 26 mi. According to rumors, a line several hundred miles long is contemplated, connecting, among other points, Sam Fordyce, Rio Grande City, Roma, Zapata, Laredo, Minera, Eagle Pass and Del Rio, Tex. E. F. Wager, V.-P. and Gen. Mgr. of the Rio Grande & Eagle Pass Ry. at Laredo, may be able to give information.

Tex., Roaring Springs.—Quanah, Acme & Pacific R. R. Co. is preparing to continue construction of its line west from Roaring Springs toward Roswell, N. M., nearly 300 mi. Sam Lazarus, St. Louis, is Pres. A. F. Sommer, Quanah, Tex., is Ch. Engr.

Tex., San Antonio.—San Antonio, San Jose & Medina Interurban Ry. Co. is reported to have completed 3½ mi. of its proposed 15-mile line from San Antonio to Kirk, Tex. Capital stock \$100,000, of which \$50,000 is issued. A. D. Powers is Pres. and L. S. Powers, Gen. Mgr., both at San Antonio.

Tex., Terrell.—Texas Midland R. R. will make survey to build its own line from Greenville to Commerce, Tex., about 14½ mi. L. W. Wells is Engr. at Terrell, Tex.

W. Va., Cass.—Greenbrier, Cheat & Elk River R. R. is reported completed by the West Virginia Spruce Lumber Co. along Elk River to a point within 12 mi. of Webster Springs, and it is continuing construction with a large force.

### STREET RAILWAYS

Ala., Montgomery.—Alabama Traction Co. has applied to the City Commissioners for a street-railway franchise in Montgomery. F.

S. Washburn of Montgomery and others are interested.

Ark., Argenta.—C. C. Kavanaugh of Little Rock and associates have bought control of the Argenta Street Ry. Co., and he was elected Pres., E. W. Jackson V.-P., and W. A. Cantrell Secy.-Treas. An extension is to be built.

Fla., Daytona.—The Daytona Street Ry. is to build an extension of 5 or 6 mi. to Port Orange and possibly to Wilbur-by-the-Sea. Michael Scholtz of Daytona may give information.

Fla., West Palm Beach.—Concerning the street-railway franchise granted to Col. C. N. Newcomb and associates, E. Burton Garrettson of the Inlet City Development Co. says it is expected to start construction in about 60 days from Riviera south to West Palm Beach, 4 mi.; also on city lines in West Palm Beach within 30 days after City Council approves the plan. Surveys practically complete. L. S. Scott is chief engineer.

Ky., Louisville.—Louisville Traction Co. may build a double-track electric railway extension, for which an ordinance has been introduced in the City Council, on 22d St. and Madison St. to Shawnee Park. T. J. Minary is president and general manager.

Mo., Hannibal.—Hannibal Railway & Electric Co. is considering an extension to Riverview Park. J. S. Mainland is Gen. Mgr.

Okla., Ardmore.—The Ardmore Street Ry. Co., recently organized, contemplates building an extension of 7 mi., including suburban lines. George Craven is Pres.

Okla., Bartlesville.—The Bartlesville Interurban Ry., it is reported, will let contract to build extension of about 2 mi.

Okla., McAlester.—Choctaw Ry. & Light Co. plans to build an extension of 1 mi. in McAlester.

Tex., Orange.—Gus M. Hodges, representing C. F. Smythe and C. E. McKee, has applied to the City Council for a street-railway franchise. They propose to spend from \$2,000,000 to \$2,500,000.

## MACHINERY, PROPOSALS AND SUPPLIES WANTED

Manufacturers and others in need of machinery or supplies of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery or supplies needed we will make their wants known free of cost, and in this way secure the attention of manufacturers and dealers throughout the country. The Manufacturers Record has received during the week the following particulars as to machinery and supplies wanted.

### "WANTS"

**Air Compressor.**—Ozark Gin & Milling Co., Ozark, Ala.—Prices on air compressors.

**Air Compressor.**—J. R. Rogers, Clerk, Marlow, Okla.—Bids until May 25 to furnish air compressor to lift 100 gals. water per minute 250 ft. with motor, etc.; also air compressor same capacity for steam connections. (See Electrical Machinery.)

**Asphalt Plant.**—R. M. Hudson, Atlanta, Ga.—Asphalt plant; good, second-hand; capacity 2000 yds. 2-in. topping, 10 hours daily.

**Blow Pipe.**—Kansas City Shook & Mfg. Co., Wilson, Ark.—Will purchase blow pipe.

**Boiler.**—Geo. E. Tomlinson, Winchester, Ky.—High-pressure boiler; 72 in. by 18 ft.

**Boiler.**—Jeffreys-Spaulding Mfg. Co., S. E. Spaulding, Mgr., Chase City, Va.—Prices on second-hand boiler, 150 H. P.

**Boiler and Engine.**—H. M. White, Dillwyn, Va.—Return tubular boiler complete, 80 to 100 H. P.; 50 to 60 H. P. automatic engine, second-hand, first-class condition.

**Boiler.**—J. R. Rogers, Clerk, Marlow, Okla.—Bids until May 25 to furnish 66-in. by 16-ft. high-pressure (150 lbs.) return tubular steam boiler. (See Electrical Machinery.)

**Boilers.**—National Interior Finish Co., E. M. Byrne, Jr., Mgr., Box 395, Huntington, W. Va.—Two horizontal tubular return boilers, 72-in. diam. by 18-ft. length, with 70 lap-welded tubes 4-in. diam. by 18-ft. length; quadruple-riveted butt and strap type; to have 2 stacks, full flush front complete; set in steel casings of No. 10 blue annealed sheet steel; Dutch oven type; f. o. b. cars Huntington.

**Boilers and Stack.**—Fremont Oil Mill Co., Fremont, N. C.—Estimates on 2 high-pressure return tubular boilers, about 150 H. P. each, with brick stack.

**Brick Stack.**—See Boilers and Stack.

**Brick-cleaning Machine.**—Geo. B. Curd, Merchants' Bldg., Cincinnati, O.—

Power brick-cleaning machinery. Give details and prices.

**Bridge Construction.**—Randolph County Court, Courthouse, Elkins, W. Va.—Let separate contracts June 2 to erect two bridges across Tygarts Valley River on Huttonsville and Marlins Bottom pike near Mingo; across Leading Creek near Montrose; bidders to submit plans and measurements on day of letting; F. A. Rowan, Clerk.

**Bridge Construction.**—Calcasieu Parish Police Jury, E. C. House, Clerk, Lake Charles, La.—Bids until June 2 to construct 2 swing bridges over Intercoastal Canal. Following alternatives: Fabrication and delivery, f. o. b. Lake Charles, all steel work and machinery; erection of steel work and machinery and supply and supply and erection of piers, abutments and flooring; supply and erection of bridges complete; plans and specifications in office Highway Dept., Calcasieu parish.

**Bridge Construction.**—See Road and Bridge Construction.

**Bridge Construction.**—Board of Roads and Revenues, Floyd County, J. G. Pollock, Chmn., Rome, Ga.—Bids until June 1 to build 60-ft. steel or concrete bridge across Silver Creek, near Rounsaville's Mill; further information with Keiffer Lindsey, County Engr., Rome.

**Bridge Construction.**—See Road Construction, Forest, Miss.

**Bridge Construction.**—Monongalia County Court, Morgantown, W. Va.—Let contract in about 3 weeks to construct reinforced concrete rib arch bridge: Monongalia Valley Engineering Co., Engrs., 208 High St., Morgantown.

**Building Materials.**—Daniel T. McCarthy, 411 Walnut St., Philadelphia, Pa.—Prices on building materials for \$45,000 post-office building at Bryan, Tex.

**Building Materials.**—Dr. J. R. Bivins, McColl, S. C.—Prices on building materials,

including windows, brick, stone for trimming, etc., for \$20,000 church building.

**Building Materials.**—Carl Shipp, Winnsboro, La.—Prices on building materials for \$20,000 hotel.

**Building Materials.**—Chas. K. Bryant, 500 Lyric Bldg., Richmond, Va.—Prices on building materials for reproduction of Mt. Vernon for State of Virginia, in San Francisco.

**Building Materials.**—Wharton Building & Supply Co., 910 Chemical Bldg., St. Louis, Mo.—Subbids on work and prices on building materials or postoffice at Pulaski, Tenn., of 3700 sq. ft. floor space, 1½ stories.

**Building Materials and Supplies.**—Home Building & Real Estate Co., 822 Church St., Lynchburg, Va.—Prices on lumber, hardware, paints, plasterers' supplies, roofing, etc.; large quantities.

**Bucket (Clam Shell).**—A. J. Twiggs & Son, Augusta, Ga.—Prices on 1-yd. clam-shell bucket.

**Cage (Convict) Wagon.**—W. P. Culbreath, Clerk, Hillsborough County, Tampa, Fla.—Bids until June 4 for cage convict wagon, capacity 16 prisoners.

**Cars (Log).**—L. F. Hobbs, Box 483, Norfolk, Va.—Six, 12 or 18 first-class, second-hand log cars, 36-in. gauge; state location, condition and price.

**Carpets.**—Dr. J. R. Bivins, McColl, S. C. Prices on carpets for \$20,000 church building.

**Chutes (Mail), etc.**—Treasury Dept., Office of Oscar Wenderoth, Supervising Archt., Washington, D. C.—Bids until June 22 for mailing platform, mail chutes and terminal-room, including mechanical equipment for U. S. postoffice at Des Moines, in accordance with drawing and specifications; copies at this office and with custodian at site.

**Clocks.**—John L. Livers, care Charlottesville & Albemarle Ry. Co., Charlottesville, Va.—Town clock with four illuminated dials; to strike hours.

**Concrete Float and Wooden Brow.**—Navy Dept., Bureau Yards and Docks, H. R. Stanford, Chief, Washington, D. C.—Bids until June 6 for concrete float and wooden brow, U. S. Naval Hospital, Newport, R. I.; plans and specifications (No. 2073) on application to bureau or to commandant of naval station, Narragansett Bay, Newport.

**Concrete Mixer.**—Ajax Construction Co., Mutual Life Bldg., Jacksonville, Fla.—Concrete gasoline mixer; ½ yd.

**Concrete Mixer.**—Ensor & Graybill, New Windsor, Md.—Concrete mixer, operated by 2 H. P. engine; Baltimore vicinity preferred.

**Crane.**—Navy Dept., Bureau Supplies and Accounts, T. J. Cowie, Paymaster-Gen., Washington, D. C.—Bids June 16 to furnish bridge crane, schedule 6782; delivery Puget Sound; for schedules apply navy pay office nearest navy-yard.

**Cranes.**—See Machine Shop Equipment, Ocala Iron Works, Ocala, Fla.

**Cranes.**—Alex. A. Scott Brick Co., 313½ Clinch Ave. W., Knoxville, Tenn.—Traveling crane; 7 tons; correspond with manufacturers.

**Crusher (Rock).**—General Engineering Construction Co., Lagrange, Ga.—Equipment for rock-crushing plant of about 200 tons daily capacity; complete or in electrically-driven units; also wants motors. (See Electrical Machinery.)

**Door Openers.**—A. W. Sherwood, R. F. D. No. 4, McDonough, Ga.—Addresses of manufacturers of electric door openers.

**Dredging.**—Navy Dept., Bureau Yards and Docks, H. R. Stanford, Chief Bureau, Washington, D. C.—Bids until June 6 to dredge reserve basin, Navy-yard, Philadelphia; plans and specifications on application to bureau and commandant navy-yard named.

**Dredging.**—U. S. Engr. Office, C. W. Kutz, Maj., Engrs., 305 Southern Bldg., Washington, D. C.—Bids until June 5 for dredging in Rappahannock River, Va. Information on application.

**Drykiln Headers.**—Eutsler Bros., Groceries, Va.—Two new or second-hand headers for drykiln; 4-in. diam., about 13 ft. long, tapped for 1-in. pipe; for kiln 18x24.

**Electric-light Plant.**—B. M. Archer, Mayor, and Aldermen, Halls, Tenn.—Bids until June 1 to install the following: 50 K. V. A. and 75 K. V. A. generators, direct-connected to Auto high-speed engine; street-lighting system, including switchboard and erection complete.

**Electrical Machinery.**—Geo. E. Tomlinson, Winchester, Ky.—Generator, 75 to 100 K. W.; 60-cycle, 3-phase, 220-volt; 20 motors, 5 to 30 H. P.

**Electrical Machinery.**—General Engineering Construction Co., Lagrange, Ga.—Three motors of 20, 50 and 75 H. P. for 3-phase, 60-cycle, 550 voltage A. C. line. (See Crusher (Rock), Lagrange, Ga.)

**Electrical Machinery.**—Navy Dept., Bureau Supplies and Accounts, T. J. Cowie, Paymaster-Gen., Washington, D. C.—Bids June 9 to furnish 2840 batteries, 7x1¼ in.; 1440 flashlights without batteries, schedule 6793; delivery all navy-yards; for schedules apply to navy pay office nearest navy-yard.

**Electrical Machinery.**—J. R. Rogers, Clerk, Marlow, Okla.—Bids until May 25 to furnish steam outfit, consisting of 66-in. by 16-ft. high-pressure (150 lbs.) return tubular steam boiler, steel jacket, steel supports, shaker grates and all necessary fittings; 100 H. P. engine with connections and fittings, including water heater and pump; 100 H. P. engine with direct-connected 65 K. W., 2300-volt, 3-phase, 60-cycle generator, with 125-volt exciter and connections; air compressor to lift 100 gals. water per minute 250 ft. with motor and connections for operating; air compressor same capacity for steam connections.

**Electrical Machinery.**—M. F. Bell, Archt., Fulton, Mo.—Will probably want 40 K. W. engine and generator, direct connected, for State Industrial Home for Incurable Negro Girls at Tipton, Mo.

**Electrical Machinery.**—W. R. Jump & Son, Bakersfield, Mo.—May want dynamo for lighting purposes.

**Electrical Door Openers.**—See Door Openers.

**Electric Motor.**—Ocala Iron Works, Ocala, Fla.—Motors. (See Machine Shop Equipment.)

**Elevator.**—North Carolina Development Co., Asheville, N. C.—Prices on elevator for \$55,000 Elks' Home.

**Elevator.**—Stuart H. Edmonds, Winchester, Va.—Prices on electric elevator for \$40,000 hotel.

**Engine.**—See Concrete Mixer.

**Engine.**—Geo. E. Tomlinson, Winchester, Ky.—Automatic left-hand engine; 15x20 in.

**Engine.**—Elias Carr, Secy. Immigration, North Carolina Dept. Agriculture, Raleigh, N. C.—Engine of 15 H. P.

**Engine.**—H. M. White, Dillwyn, Va.—Second-hand automatic engine; 50 to 60 H. P. (See Boiler and Engine.)

**Engine.**—See Sawmill, Raleigh, N. C.

**Engines.**—Navy Dept., Bureau Supplies and Accounts, T. J. Cowie, Paymaster-Gen., Washington, D. C.—Bids June 2 to furnish steam engines, schedule 6767; delivery Norfolk; for schedules apply to navy pay office nearest navy-yard.

**Engines.**—J. R. Rogers, Clerk, Marlow, Okla.—Bids until May 25 to furnish 100 H. P. engine with connections and fittings; also 100 H. P. engine with direct-connected 65 K. W., 2300-volt, 3-phase, 60-cycle generator, etc. (See Electrical Machinery.)

**Evaporators.**—C. Lindley Wood, Box 138, Pablo Beach, Fla.—Addresses of manufacturers of evaporators as used by sulphate of ammonia manufacturers.

**Flour Mill Machinery.**—W. R. Jump & Son, Bakersfield, Mo.—Complete modern flour mill equipment; also over-shot water wheel. (See Water Wheels.)

**Forgings (Drop).**—A. C. Manire, R. F. D. No. 1, Greenwood, Tex.—Addresses of manufacturers of drop forgings.

**Governors (Water Wheel).**—Graves Engineering Co., 35 Pine St., New York.—Water wheel governor; new or second-hand; for three 48-in. wheels operating under 8 ft. head; 3 per cent. regulation needed.

**Hardware.**—See Building Materials and Supplies, Lynchburg, Va.

**Heating Plant.**—Daniel T. McCarthy, 411 Walnut St., Philadelphia, Pa.—Prices on steam-heating plant for postoffice building at Bryan, Tex.

**Heating Plant.**—A. D. Miller, Ruskin, Fla.—Prices on acetylene heating plant for \$7000 building for Ruskin College.

**Heating and Pumping Plant.**—Navy Dept., Bureau Yards and Docks, H. R. Stanford, Chief, Washington, D. C.—Bids until June 6 to furnish and install heating and pumping plant (except building and boilers) with piping connecting and distributing systems at U. S. Naval Hospital, Chelsea, Mass.; plans and specifications (No. 2075) on application to bureau or to commandant, Navy-yard, Boston.

**Hoisting Machinery.**—Ajax Construction Co., Mutual Life Bldg., Jacksonville, Fla.—Steel elevator for elevating concrete on building with power attachment, or separate hoisting engine for elevator.



**Hose.**—Town of Washington, La., F. P. Martin, Mayor.—Bids until June 19 for 1900 ft. 6½-in., 3-ply multiple woven fiber fire hose, fitted with approved standard couplings.

**Hose.**—Navy Dept., Bureau Supplies and Accounts, T. J. Cowie, Paymaster-Gen., Washington, D. C.—Bids June 16 to furnish 5000 ft. cotton covered wash deck hose, 1½ in., 50-ft. lengths with couplings, schedule 6810; delivery Mare Island; for schedules apply to navy pay office nearest navy-yard.

**Ice and Cold-storage Machinery.**—E. B. Crabbell, agent, N. & W. Ry., Galax, Va.—Addresses of manufacturers of ice-making machines and constructors of cold-storage plants.

**Lathe.**—Navy Dept., Bureau Supplies and Accounts, T. J. Cowie, Paymaster-Gen., Washington, D. C.—Bids June 9 to furnish lathe, 18-in. by 6-ft. geared head engine lathe, schedule 6801; delivery Boston; for schedules apply to navy pay office nearest navy-yard.

**Lathes (Engine).**—Navy Dept., Bureau Supplies and Accounts, T. J. Cowie, Paymaster-Gen., Washington, D. C.—Bids June 2 to furnish engine lathes, schedule 6767; delivery Norfolk; for schedules apply to navy pay office nearest navy-yard.

**Levee Construction.**—Executive Dept., Luther E. Hall, Governor, Baton Rouge, La.—Bids until May 20 at office of Board of State Engrs., 213 New Orleans Court Bldg., New Orleans, La., to construct following levees in Bossier parish, left bank of Red River: Bossier City levee, 29,000 cu. yds., deposit \$125; Christians levee, 60,000 cu. yds., deposit \$225.

**Lighting Plant.**—A. D. Miller, Ruskin, Fla.—Prices on acetylene lighting plant for \$7000 building for Ruskin College.

**Locomotive.**—Navy Dept., Bureau Yards and Docks, H. R. Stanford, Chief of Bureau, Washington, D. C.—Bids until June 6 to furnish 25-ton saddle tank switching locomotive at Navy-yard, New York. Information on application.

**Lumber.**—Home Building & Real Estate Co., 822 Church St., Lynchburg, Va.—Prices on lumber. (See Building Materials and Supplies.)

**Lumber.**—Cuero Cotton Compress Co., Cuero, Tex.—Prices on about 100,000 f. R. H. lumber.

**Machine Shop Equipment.**—Ocala Iron Works, Ocala, Fla.—Prices on new and second-hand lathes, boring mill, pipe machine, bolt machines, cranes, hoists, hacksaws, key seater, shaper, drill press, motors, etc.

**Machine Tools.**—Navy Dept., Bureau Supplies and Accounts, T. J. Cowie, Paymaster-Gen., Washington, D. C.—Bids June 2 to furnish shapers, drills, tool-grinding machines, schedule 6767; delivery Norfolk; for schedules apply navy pay office nearest navy-yard.

**Marine Railway.**—A. J. Calkins, Claremont, Va.—Marine railway; new or second-hand fixtures; for hauling out small sailing craft up to 50 tons.

**Metal Lath.**—A. D. Miller, Ruskin, Fla.—Prices on metal lath for \$7000 building at Ruskin College.

**Metal-working Machinery.**—Florida Association, St. Petersburg, Fla., and 1914 Cherry St., Philadelphia, Pa.—Data and prices on canmaking machinery; for syrup containers.

**Mixing Machinery.**—Arkadelphia Milling Co., Arkadelphia, Ark.—Prices on self-rising flour mixing machinery.

**Motors (Spring).**—W. J. Jones, Martinsville, Va.—Addresses of manufacturers of spring motors suitable for operating churn; may want large number.

**Nails.**—White Furniture Co., Mebane, N. C.—Addresses of manufacturers of cut and wire nails; wants prices on carload lots.

**Mail (Box) Machine.**—L. W. Clark, Mgr., American Warehouse, Spray, N. C.—Catalogues and prices on box mailing machine.

**Nursery Stock.**—J. S. Wilson, landscape gardener, Bailey, N. C.—Catalogues and prices of ornamental nursery stock.

**Painting.**—Daniel T. McCarthy, 411 Walnut St., Philadelphia, Pa.—Prices on painting postoffice building at Bryan, Tex.

**Paving, etc.**—Navy Dept., Bureau Yards and Docks, H. R. Stanford, Chief of Bureau, Washington, D. C.—Bids until June 6 for roads and walks at U. S. Naval Hospital Reservation, Newport, R. I. Plans and specifications on application.

**Paving, etc.**—Board of Public Works, H. Levinson, Supt., Little Rock, Ark.—Bids until May 22 to drain, grade, gutter, curb

and construct sidewalks in Street Improvement Dist. No. 229, Denison and Barton Sts. from Markham to 2d Sts.; plans and specifications in office of Mr. Levinson.

**Paving.**—Board of Awards, John Hubert, Acting Prest., care City Register, City Hall, Baltimore, Md.—Bids until May 27 to grade, curb and pave with sheet asphalt, vitrified block and scoria block on concrete base, on Baltimore and Liberty Sts. and Fremont Ave.; contract No. 88; sheet asphalt, 8750 sq. yds.; vitrified block, 820 sq. yds.; scoria block, 389 sq. yds.; approximate quantities; specifications, etc., obtainable office of Paving Com., R. Keith Compton, Chrmn. and Consult. Engr., City Hall; plans and profiles office of Consult. Engr.

**Paving, etc.**—Stims Cameron, City Secy., McKinney, Tex.—Bids until May 26 for work in Improvement Dist. No. 1; 25,438 sq. yds. paving, 12,166 cu. yds. excavation, 14,846 lin. ft. curb, and gutter catch-basins, drains, etc.; Chas. Schultz, City Engr.

**Paving.**—Hillsborough County, W. P. Culbreath, Clerk, Tampa, Fla.—Bids until June 4 to pave with concrete 1 mi. road between eastern limits of Port Tampa City and Ballast Point; also for 1 mi. No. 1 vitrified brick paving on same road.

**Paving, etc.**—R. W. Pipkin, Town Mgr., Morganton, N. C.—Bids until June 1 to construct 3600 sq. yds. concrete paving and 2100 lin. ft. concrete curbing on Green St. between Union and Concord Sts.; also 3600 sq. yds. paving, concrete foundation, bituminous top on Union St. between Green and King Sts.

**Paving.**—Leon County Commrs., Tallahassee, Fla.—Bids until June 6 to lay cement sidewalks from Courthouse Sq. with walk to main entrance of building; 4 in. thick, 3 in. of concrete base; Henry T. Felkel, Clerk.

**Paving, etc.**—H. D. Seago, Clerk, Harlingen, Tex.—Bids until June 15 to complete sidewalks and curbs in Improvement Dist. No. 1; 182,000 sq. ft. sidewalks, 21,350 lin. ft. curbing and 5600 lin. ft. curb and gutter; L. S. Ross, Mayor.

**Paving, etc.**—City, O. A. Ederinton, Commr. Streets and Public Improvement, Mart, Tex.—Bids until June 1 to pave Texas Ave. from west line of Criswell St. to west line of International & Great Northern Ry.; Pearl St. from south line of McClellan Ave. to north line Limestone Ave.; about 17,400 sq. yds. pavement and 4500 ft. combined curb and gutter; Lake Robertson, City Engr.

**Paving, etc.**—Board of Commrs., Julian Kendrick, City Engr., Birmingham, Ala.—Bids until May 19 to pave 25th St. from 1st to 8th Aves.; bids on sheet asphalt (open specifications); asphaltic concrete; vitrified brick and bitulithic; work includes 14,400 sq. yds. paving in roadway; 1000 yds. concrete gutters, 460 yds. cement sidewalk, 200 yds. brick alley paving, 3100 lin. ft. curb reset, with drainage pipes and inlets.

**Perfume (for Sweeping Powder).**—Southern Desk Co., Hickory, N. C.—Perfume (probably chemically prepared) for scenting sawdust sweeping powder.

**Piping, etc.**—Water and Light Dept., Newbern, N. C.—Bids until May 27 on following f. o. b. Newbern for installation additional generating unit: 800 ft. 10-in. class A bell and spigot water pipe; 10-in. Buffalo type of foot valve; 90-degree ell; 45-degree ell; about 40,000 hard brick for foundation, and 200 bbls. cement; F. T. Patterson, City Clerk.

**Plumbing.**—Daniel T. McCarthy, 411 Walnut St., Philadelphia, Pa.—Prices on plumbing for \$45,000 postoffice building at Bryan, Tex.

**Printing Machinery.**—Times Publishing Co., St. Petersburg, Fla.—Bids on new Webb press and linotype machine, working material, etc., for printing plant.

**Pump.**—Navy Dept., Bureau Supplies and Accounts, T. J. Cowie, Paymaster-Gen., Washington, D. C.—Bids June 2 to furnish fire pump at naval station, Key West; for schedules apply to navy pay office nearest navy-yard.

**Pumps.**—Engineering Dept., Jos. E. Kuhn, Lieut.-Col., Engrs., Washington Barracks, D. C.—Bids until June 12 to furnish motor-driven centrifugal pumps. Information on application.

**Pumping Machinery.**—Mazepa Oil & Gas Co., Muskogee, Okla.—Will want pumping machinery. Address Troy L. Powell.

**Quarrying Machinery.**—See Slate-working Machinery.

**Rails.**—People's R. R. Co., E. B. Gaston, Prest., Fairhope, Ala.—Relaying rails; 1 mi.; 56-lb. weight; first-class; f. o. b. Mobile, Ala.

**Road Reconstruction.**—Quartermaster, War Dept., U. S. A., Fort Myer, Va.—Bids until June 1 to reconstruct heavy traffic road; information on application.

**Road Construction.**—Road Commrs., Beat 1, Chickasaw County, J. Rice Williams, Chrmn., Houston, Miss.—Bids until June 8 to grade and gravel 18½ mi. road according to plans and specifications in office of board; Stein & Harbert, Engrs., Indianola, Miss.

**Road Construction.**—W. A. Turner, Secy., Highway Commrs., Supervisors' Dist. No. 1, Scott County, Forest, Miss.—Bids until June 1 to improve about 6 mi. roads; grade, bridge, surface and furnish material; plans, specifications, etc., on file offices of Secy. of Chancery Clerk of Scott County, and Xavier A. Kramer, Engr., Magnolia, Miss.; blanks obtainable on application to Engr.

**Road Construction.**—Maryland State Roads Com., 601 Garrett Bldg., Baltimore, Md.—Bids until May 26 to build 6 sections State highway, about 25.28 mi.: Allegany county, 7.88 mi. resurfacing and 3.56 mi. concrete resurfacing; Anne Arundel, 4.55 mi. gravel; Kent, 3.4 mi. macadam or concrete; Queen Anne's, 5.55 mi. macadam or concrete; Washington, 4 mi. resurfacing; amounts approximate; plans and specifications on application and payment of \$1 for each contract.

**Road Construction and Materials.**—Harris County, H. L. Washburn, Auditor, Houston, Tex.—Bids until May 25 for hauling and placing 5500 cu. yds. gravel from designated points for paving 6½ mi. Alameda Rd. and for preparing sub-grade thereof as per plans and specifications in office County Engrs.

**Road Construction and Materials.**—Harris County, H. L. Washburn, Auditor, Houston, Tex.—Bids until June 1 for gravel for base 4½ mi. Kuykendahl Rd.; shell for topping same; hauling, rolling and preparation of sub-grade; prices on shell and gravel, f. o. b. cars as per plans and specifications in office County Engrs.

**Road Construction.**—Macon County Commrs., Tuskegee, Ala.—Bids until June 1 to grade about 2 mi. road, machining about 7 additional mi. and surfacing 4 mi. with top soil or sand-clay; W. S. Keller, State Highway Engr., Montgomery, Ala.

**Road and Bridge Construction.**—McLennan County, W. T. Lockwood, Auditor, Waco, Tex.—Bids until June 15 for 5 separate road contracts and 5 separate bridge and culvert contracts in Road Dist. No. 2; road contracts include 185 mi. various types of construction as follows: Brick, 1½ mi.; concrete, 2½ mi.; bituminous macadam, 70 mi.; water-bound macadam, oil surface, 18 mi.; gravel, 81 mi.; sand-clay, 12 mi.; bridge and culvert contracts include steel I beams encased in concrete, reinforced concrete boxes, corrugated pipe and vitrified pipe, in amounts as designated on detail plans in office of R. J. Windrow, County Engr.

**Roofing.**—Daniel T. McCarthy, 411 Walnut St., Philadelphia, Pa.—Prices on roofing for postoffice building at Bryan, Tex.

**Roofing.**—Home Building & Real Estate Co., 822 Church St., Lynchburg, Va.—Roofing material. (See Building Materials and Supplies.)

**Sawmill.**—Elias Carr, Secy., Immigration, North Carolina Dept. of Agriculture, Raleigh, N. C.—Prices on light sawmill, for farm use, with 15 H. P. engine.

**Scale.**—Geo. J. Adams, 39 South St., corner Old Slip, New York.—Second-hand track scale; 50 or 60 tons.

**Seating.**—Dr. J. R. Blivins, McColl, S. C. Prices on seats for \$30,000 church building.

**Sewers.**—City, Julian Kendrick, City Engr., Birmingham, Ala.—Bids until about June 2 to construct sanitary sewers in East Lake, about 4 mi.; cost \$16,000.

**Sewer Construction.**—City of Collinsville, Okla., Wm. M. Gresham, Clerk, will let contract May 25 to construct 4120 ft. sewers, Nos. 8 and 9. (Previously noted.)

**Slate-working Machinery.**—Telford Slate Mining & Mfg. Co., J. L. Humphrey, Mgr., Telford, Tenn.—Equipment of machinery, including planers for dressing slabs, for manufacturing commercial slate.

**Sprinkler System.**—Kansas City Shook & Mfg. Co., J. B. Cullom, Secy., Wilson, Ark.—Will purchase automatic sprinkler system.

**Stave Machinery.**—A. E. Kruse, Windsor, Va.—Stave mill machinery; daily capacity 15,000 keg staves.

**Steel Gates.**—Chatham County Commrs., C. Reuben Butler, Clerk, Savannah, Ga.—Bids until June 11 to construct 4 steel gates for Augustine Outlet Lock; plans and specifications at office of Commrs

**Steam Shovel.**—Stacy & Dulaney, Greenville, Miss.—Prices on steam shovel; 1½ yd. dipper.

**Telephone Equipment.**—Center Town Home Telephone Co., L. B. Gilbert, Prest., McMinnville, Tenn.—Prices on material for constructing 100 metallic telephone lines, longest 16 mi.

**Tin Cans.**—Florida Association, St. Petersburg, Fla., or 1914 Cherry St., Philadelphia, Pa.—Prices from manufacturers on tin cans for syrup containers.

**Tubes.**—Navy Dept., Bureau Supplies and Accounts, T. J. Cowie, Paymaster-Gen., Washington, D. C.—Bids June 9 to furnish 6300 condenser tubes, admiralty metal, ¾-in. O. D., 65 mils thick, 13 ft. 2½ in. long, schedule 6808; delivery Brooklyn; 2100 evaporator tubes, brass admiralty mixture, seamless drawn, 2-in. O. D., 5 ft. 10 in. long, 109 mils thick, schedule 6808; delivery Norfolk; for schedules apply to navy pay office nearest navy-yard.

**Vacuum Cleaners.**—Handelsvereeniging "Buderus," Hofgelyckstrat 35-38, The Hague, Holland.—Prices on vacuum cleaners; view to exclusive representation.

**Valves.**—Navy Dept., Bureau Supplies and Accounts, T. J. Cowie, Paymaster-Gen., Washington, D. C.—Bids June 9 to furnish miscellaneous lot brass and iron gate valves, also brass and iron globe and angle valves, schedule 6739; delivery Washington; for schedules apply to navy pay office nearest navy-yard.

**Water Wheels.**—W. R. Jump & Son, Bakersfield, Mo.—Overshot water wheel. (See Flour Mill Machinery.)

**Water-works.**—Office, Village Clerk, Freeburg, Ill.—Bids until June 1 to furnish material and construct improvements to water-works; about 1924 ft. class B cast-iron pipe, 1800 lbs. cast-iron specials, 300 ft. 4-in. cast-iron pipe, 2 fire hydrants, two 6-in. and two 4-in. gate valves with boxes, 60 No. 3 c. b. glass insulators, 7500 ft. No. 2 B. & S. gauge, T. B. W. P. wire; 200 G. P. M. motor-driven triplex pump, motor to be D. C., 220 volts, not less than 12 H. P. capacity; plans and specifications office of Clerk and of Engr., Fuller-Coutt Co., Chemical Bldg., St. Louis.

**Water-works.**—B. M. Archer, Mayor, and Aldermen, Halls, Tenn.—Bids until June 1 to construct concrete reservoir, 100,000 gals. capacity; lay 3 mi. 4 and 6 in. mains, 26 hydrants, 2 6-in. valves, 10 4-in. valves with boxes, and 150 H. P. boiler; R. C. Huston, Consult. Engr., Exchange Bldg., Memphis, Tenn.

**Water-works.**—J. G. Sutton, City Secy., Beaumont, Tex.—Bids until June 2 to improve water-works; bids separately as follows: Furnishing material and labor and constructing water-works canal and improvements; furnishing material and labor and constructing concrete settling basin, concrete construction for filters, brick filter-house, etc.; furnishing material and equipment and erecting six 500,000-gal. mechanical filter units; Burns & McDonnell, Consult. Engrs., 821 Scarritt Bldg., Kansas City, Mo.

**Well-drilling Equipment.**—Carnegie Oil Development Co., Carnegie, Okla.—Open bids Sept. 1 for oil drills.

**Well-drilling.**—Office of Constructing Quartermaster, Fort Sam Houston, Tex.—Bids until May 22 to sink and case 6-in. tubular deep well on old target ranch, about 4 mi. from San Antonio, Tex.

**Wire.**—War Dept., Office Chief Signal Officer, Chas. S. Wallace, Capt., Washington, D. C.—Bids until June 2 to furnish 130 mi. galvanized iron wire, 144 mils, in accordance with specifications 82-c, 96-c, drawings 106; also 400 mi. galvanized iron wire, 81 mils, in accordance with S. C. specifications 82-c, 96-c and drawings 106. Send for specifications.

**Wire Spring Specifications.**—Auto Anti-Rattle Co., Cape Charles, Va.—Correspondence with view to having specifications made for manufacture of patented wire spring for automobiles.

**Wire Baskets.**—F. C. Wright, Cave Springs, Ga.—Woven wire baskets for burning waste; park use, etc.

## FINANCIAL NEWS

### FINANCIAL CORPORATIONS

Ala., Thomaston.—Planters' Bank & Trust Co. has begun business; capital \$15,000; Dr. C. B. Thomas, Prest.; C. C. Pritchett, Cash.  
Ala., Citronelle.—R. Dell Buono is reported taking steps to organize a bank with \$15,000 capital.

Ark., Forest City.—The conversion of the Bank of Forest City into the First National Bank of Forest City is approved; capital \$50,000.

Ark., Hope.—Citizens' National Bank is chartered; capital \$100,000; surplus \$50,000. This succeeds Citizens' Bank of Hope. R. M. Lagrone, Pres.; R. M. Briant, V.-P.; C. C. Spragins, Cash.

Ark., Junction City.—Union Bank & Trust Co. is chartered; capital \$50,000; surplus \$5000, and undivided profits \$10,000; J. E. Hampton, Pres.; J. M. Brown, V.-P.; R. G. Brown, Secy. This succeeds the Citizens' Bank & Trust Co.

Ark., Lead Hill.—Bank of Lead Hill has begun business; capital \$10,000. Directors: C. H. Hunter, Pres.; W. R. Cantrell, V.-P.; L. B. Bell, Cash.

Ark., Little Rock.—The Lasker & Morris Bank & Trust Co., capital \$100,000, is organized by Harry Lasker, Emmet Morris and Robert W. Newell of Little Rock. Offices will be at 115 W. 2d St.

Fla., De Land.—The Surety & Investment Co., which has taken over the agency in fire insurance that the De Land Realty Co. has held, is organized by A. G. Hamlin and J. P. Simmons.

Fla., Ocala.—Munroe & Chambliss Bank has made application to convert into the Munroe & Chambliss National Bank of Ocala; capital \$50,000.

Fla., Tampa.—State Title & Mortgage Insurance Co. is organized with following directors: Willey B. Coarsey, T. B. Sherrill, W. F. Lucas, J. L. Brannen, Dr. J. S. Helms, W. P. Culbreath, S. L. Lowry, Dr. W. P. Adamson, C. D. Thames, G. E. Mabry, A. A. McCranie, W. G. Allen, Tarpa; J. T. Dargan, Atlanta; R. S. Hall, Ocala; Wattle Wey, Arcadia; Albert Carlton, Wauchula; L. F. Skinner, Dunedin, and J. K. Cheyney and Ernest Meares, Tarpon Springs.

Fla., Watertown.—Watertown Bank, capital \$15,000, is organized with J. L. Edwards Pres.; J. J. Paul, 1st V.-P.; H. S. Bean, 2d V.-P.; L. B. Lee, Cash.

Ga., Columbus.—Columbus Loan & Banking Co. chartered; capital \$50,000; V. A. Cox, Pres.; Thos. A. Williams, V.-P.; O. V. Lamar, Cash. Business began June 1.

Ga., Metcalfe.—Bank of Metcalfe chartered; capital \$15,000; E. M. Smith, Pres., Thomasville, Ga.; J. W. Horne and H. C. Copeland, V.-Ps. Business began May 1.

Ky., Winchester.—Mutual Fire Insurance Co. is being organized with \$100,000 capital. C. B. Tippet and others are interested.

La., Oakdale.—A new bank is being organized by E. N. Taylor, V. L. Millsap, Dr. E. S. Clement, J. V. Glass, J. H. Kirth, Jr., Dr. M. V. Hargrove and W. E. Saucier.

Md., Thurmont.—The Thurmont Bank, which is a conversion of the Thurmont National Bank, is chartered; capital \$25,000; surplus \$18,000; business began May 12; Lester S. Birely, Pres.; John G. Jones, Cash.; directors, Lester S. Birely, Morris A. Birely, Peter N. Hammaker, Geo. W. Stocksdaile, Wm. J. Stoner, M. Luther Creager and Chas. M. Root, Thurmont; Vincent Schold, Emmitsburg; Chas. L. Wachter, Sabillasville; Chas. H. Brown, Lantz.

Mo., Frohna.—Local citizens are reported organizing a bank with \$10,000 capital. Address The Mayor.

Okla., Durant.—State National Bank of Durant, which is a conversion from Guaranteed State Bank, began business May 9. Directors: E. C. Millon, Pres.; A. N. Thomas and Green Thompson, V.-Ps.; Geo. H. Harris, Cash., and S. Graham. Frank Gregory is Asst. Cash.

N. C., Winston-Salem.—Security Bank & Trust Co. is being organized with J. A. McDowell as Pres. Sink & Hurdle are fiscal agents.

Okla., Ringling.—First National Bank, capital \$50,000, is organized with J. J. Cloughley Pres.; Poke Anderson of Ardmore, V.-P.; A. A. Morris, Cash. This succeeds the Bank of Cornish.

S. C., Charleston.—Commercial National Bank chartered; capital \$200,000. T. T. Hyde, Pres.; Courtney Olney, Cash. This is a conversion of the Commercial Savings Bank of Charleston.

S. C., Columbia.—United Trust Co. is chartered with \$25,000 capital. Ernest G. Cook, Pres. and Treas.; D. L. Cook, Secy.

S. C., Union.—W. W. Colton Loan & Realty Co. is commissioned; capital \$10,000. Petitioners: W. W. Colton and Nena Colton Burris.

Tenn., Maryville.—First National Bank chartered; capital \$50,000. Thos. N. Brown, Pres.; J. H. Staley, V.-P.; E. F. Ames, Cash. Business is to begin about June 15.

Tex., Fort Worth.—Fort Worth Building

and Loan Assn. is chartered; capital \$500,000; incorporators, E. S. Hooper, Harry A. Hurt and H. I. Pincus.

Tex., Houston.—Citizens' Loan & Land Co., chartered, has begun business; capital \$50,000; surplus May 1, 1914, \$11,000. Directors: J. R. Cheek, Pres., Houston; M. O. Koppert, V.-P., Galveston; M. S. Waller, Secy. and Treas., Houston. Business has begun.

Tex., Newton.—A new bank capitalized at \$10,000 is being organized by G. M. Sells of Orange.

Tex., Roaring Springs.—First State Bank of Roaring Springs is authorized to begin business; capital \$25,000.

Va., Lynchburg.—Co-operative Building and Loan Association will make application for charter; capital \$100,000 to \$300,000. Peyton B. Winfree, Pres.; Lawrence H. McWane, V.-P.; A. T. Henderson, Secy.-Treas.; directors, Peyton B. Winfree, Lawrence H. McWane, G. E. Vaughan, C. M. Guggenheimer and Don P. Halsey.

W. Va., Cowen.—The First National Bank is approved; capital \$25,000; organizers, Wm. Rogers, D. P. Kessler, J. N. Barthy, Secy.; A. W. Babbitt and R. O. Candler.

### NEW SECURITIES

Ala., Ashford.—June 8 election is to be held to vote on \$10,000 school and \$10,000 water and light 5 per cent. 30-year bonds; denomination \$500. J. S. Radney is Mayor.

Ala., Bessemer.—\$30,000 30-year school bonds are voted. Address School Board.

Ala., Hamilton.—\$100,000 5 per cent. 30-year Marion county road bonds are purchased by Steiner Bros., bankers. Address County Commrs.

Ark., Clarksville.—School Board has authorized \$30,000 Clarksville School Dist. building bonds.

Ark., Russellville.—Pope county is considering question of issuing highway bonds. Address County Commrs.

Fla., Apopka.—Election is to be called to vote on from \$10,000 to \$15,000 municipal improvement bonds. Address Town Commrs.

Fla., Bradenton.—Election is to be held June 9 to vote on \$60,000 5 per cent. 20-30-year bonds as follows: Water-works, \$30,000; fire department, \$5000; drainage, \$5000; storm sewers, \$10,000; refunding, \$15,000. Denomination \$500. C. A. Birney is Mayor.

Fla., Brooksville.—Steps are being taken to call an election to vote on \$20,000 school bonds. Address Board of Education.

Fla., Daytona.—\$50,000 school bonds are voted. Henry Titus is Mayor.

Fla., Delray.—Election is to be held to vote on light and water bonds. Address The Mayor.

Fla., Lakeland.—Election is to be held to vote on \$70,000 new light and water, \$25,000 extension light and water lines, \$10,000 fire department and \$20,000 sewerage extension bonds. Address The Mayor.

Fla., Miami.—City has voted \$401,000 of bonds as follows: Streets and sidewalks, \$90,000; plant for disposal of sewerage, garbage, etc., \$25,000; fire stations, \$30,000; hospital, \$10,000; sewers, \$90,000; wharves and docks, \$185,000. J. W. Watson is Mayor and William B. Moore, City Clerk.

Fla., Miami.—Bids will be received until noon June 12 for \$150,000 6 per cent. bonds Miami Special Tax School Dist. No. 2, Dade county; dated Apr. 1, 1914; maturity Apr. 1, 1934. Address R. E. Hall, Secy. County Board of Public Instruction.

Fla., Mulberry.—Election will be held June 8 to vote on \$15,000 5 per cent. 20-year bonds Special Tax School Dist. No. 13. Chester A. Parker is Supt. and Secy. Board of Public Instruction, Polk County, Bartow, Florida.

Fla., Ojus.—\$12,000 of bonds for schools at Ojus and Miami are voted. Address Board of Education.

Fla., Orlando.—\$100,000 5 per cent. 30-year paving bonds were purchased by People's National Bank of Orlando at 100.0125 and interest; denomination \$500; dated Apr. 1, 1914.

Fla., Punta Gorda.—\$60,000 30-year municipal improvement and refunding bonds have been purchased by W. P. Bullock at par for 5 1/8. E. W. Smith is Chrmn. Board of Bond Trustees.

Fla., Sanford.—Bids will be received until 5 P. M. May 29 for \$50,000 6 per cent. 10-30-year refunding bonds; dated July 1, 1914; S. O. Chase, Geo. H. Fernald and B. F. Whitner, Board of Bond Trustees.

Fla., St. Petersburg.—\$148,000 gas-plant bonds are voted. Address The Mayor.

Fla., St. Augustine.—All bids received May 11 for \$650,000 5 1/2 per cent. St. Johns county road bonds were rejected. W. Wallace S. Snow is County Clerk.

Ga., Butler.—Election will be held June 13 to vote on \$12,000 6 per cent. 20-30-year water-works bonds. Address The Mayor.

Ga., Gay.—All bids received May 15 for \$10,000 6 per cent. 10-30-year bonds were rejected and new bids will be received until 2 P. M. June 10; denomination \$1000; dated June 1, 1914. Address D. P. Ellis, Pres. Board of Trustees, Gay-Oakland School Dist.

Ga., Norcross.—Election will be held June 10 to vote on \$4000 5 per cent. school building bonds; denomination \$1000. O. O. Simpson is Mayor.

Ga., Tifton.—\$17,000 water-works, \$13,000 school, \$7000 fire-department bonds are voted; \$8000 city-hall bonds defeated by one vote. Address The Mayor.

Ky., Vanceburg.—Election is soon to be held in Lewis county to vote on \$150,000 road bonds. Address County Commrs.

Ky., Sebree.—City has voted bonds for water-works. It is expected to offer the bonds for sale about June 15. C. H. Ramsey is Mayor.

La., Melville.—\$15,000 electric-light bonds are voted. Lester J. Williams is Mayor.

La., Shreveport.—\$70,000 5 per cent. Vivian School Dist. No. 3, Caddo parish, bonds were purchased by Cutter, May & Co., Chicago. C. E. Byrd is Supt. Board of School Trustees.

Md., Chestertown.—Bids will be received until noon June 9 for \$25,000 street and sewer bonds; denomination \$1000; dated July 10, 1914. Address Commrs. of Chestertown, William T. Dwyer, Pres.; James W. Crouch, clerk.

Md., Cumberland.—Commrs. of Allegany county will issue \$30,000 5 per cent. road bonds; denomination not less than \$500 nor more than \$1000. Address Pres. County Commrs.

Md., Cumberland.—Bids will be received until 10 A. M. May 25 for \$60,000 4 1/2 per cent. water-improvement funding bonds; denomination \$250, \$500 and \$1000; dated May 1, 1914. Ward M. Eichelberger is Commr. of Finance and Revenue.

Md., Greensboro.—\$20,000 water-works bonds are voted. Address The Mayor.

Md., Midland.—Election is to be held to vote on \$5000 5 per cent. 2-15-year general-improvement bonds; denomination \$500. Address The Mayor.

Md., Upper Marlboro.—Bids will be received until noon June 2 for \$40,000 5 per cent. 30-year school bonds. Address Frederick Sasser, Secy. School Board.

Md., Williamsport.—Election is to be held June 8 to vote on \$40,000 electric-light and water-works bonds. Address The Mayor.

Miss., Brandon.—May 30 election is to be held in Rankin county to vote on \$50,000 First Supts.' Dist. road bonds. Address County Commrs.

Miss., Flora.—Bids will be received until noon June 1 by W. L. Ross, Town Clerk, for \$10,000 6 per cent. water and light bonds; denomination \$500.

Miss., Greenville.—Greenville School Dist., Washington county, proposes to issue \$50,000 bonds. Address School Commrs.

Miss., Gulfport.—Bids will be received until noon June 8 for \$15,000 5 per cent. bonds Mississippi City Rural Separate School Dist., Harrison county; denominations \$1000 and \$500; dated July 1, 1914; maturity July 1, 1924, to July 1, 1934. Jno. J. Murphy is Clerk.

Miss., Indianola.—\$77,250 6 per cent. drainage bonds have been purchased by R. H. & G. A. McWilliams of Chicago and Memphis at par and interest.

Miss., McComb City.—\$20,000 5 per cent. city hall bonds will be sold at 8 P. M. June 2 by the Board of Mayor and Selectmen. J. Dock Harrell is City Clerk. Further particulars will be found in the advertising columns.

Miss., Meridian.—Mayer, Deppe & Walter, Cincinnati, purchased on May 12 at \$605 premium, accrued interest and bidders to pay for bonds, the \$60,000 5 per cent. school-improvement bonds; denomination \$1000; dated May 1, 1914; maturity 3 bonds July 1, 1920, and 3 bonds yearly thereafter. T. A. McCaskill is Clerk and Treas.

Md., Towson.—\$1,000,000 sewerage and \$500,000 school bonds Baltimore county defeated.

Miss., Greenville.—Election is to be held June 4 to vote on \$15,000 city hall and \$65,000 high school bonds. L. Starling is City Clerk. Further particulars will be found in the advertising columns.

Miss., Tishomingo.—Negotiations are reported under way for the sale of \$7500 school bonds, recently voted. Address Board of Education.

Mo., Butler.—June 9 election is to be held

to vote on \$75,000 5 per cent. 19-20-year water-works bonds. H. E. Cook is Mayor.

Mo., Cartersville.—\$12,000 Cartersville School Dist. bonds are reported sold. Address Board of Education.

Mo., Cartersville.—\$12,000 school district bonds have been purchased by J. R. Sutherland & Co., Chicago.

Mo., Wellston, P. O. St. Louis.—\$40,000 high-school building bonds Wellston Dist. are voted. Address School Commrs.

N. C., Cherryville.—Bids will be received until 1 P. M. June 15 for \$20,000 5 per cent. 30-year school bonds. Address J. B. Houser.

N. C., Hertford.—Bids will be received by Board of Town Commrs. until 7.30 P. M. June 15 for \$50,000 5 per cent. 50-year bonds as follows: Water-works, \$17,000; sewerage, \$13,000; electric-light plant, \$12,000; street paving, \$8000. W. E. White is Mayor. Further particulars will be found in the advertising columns.

N. C., Lillington.—Bids will be received until 2 P. M. June 1 for \$15,000 5 per cent. 40-year Harnett county road bonds; dated July 1, 1914; denomination not less than \$100 nor more than \$1000. J. H. Williams is Chrmn. Board of County Commrs.

N. C., Roanoke Rapids.—Roanoke Rapids Graded School Dist. May 5 voted \$20,000 school bonds, which will be placed on market as soon as preliminary details of issuance are settled. Address Board of Trustees.

N. C., Roxboro.—\$150,000 5 per cent. 40-year Person county road bonds defeated.

N. C., Smithfield.—\$500,000 Johnston county road bonds defeated.

N. C., Smithfield.—\$150,000 township, Johnston county, 5 per cent. 40-year road bonds were voted May 12; dated July 1, 1914; denomination \$1000. D. B. Oliver is Chrmn. Board of Commrs., Pine Level, and E. T. Watson, Clerk, Smithfield. Date for offering \$100,000 of the bonds will be decided June 1.

Okla., Collinsville.—Bids will be received until 7 P. M. May 25 for \$4000 6 per cent. 25-year city hall extension and improvement bonds; Wm. M. Gresham, City Clerk.

Okla., Oklahoma.—Election is to be held in June to vote on \$20,000 bonds Consolidated School Dist. No. 1, Oklahoma county. Address County Commrs.

S. C., St. Matthews.—Bids will be received until noon May 29 by J. H. Loryea, Clerk Board of Trustees, for \$6000 5 per cent. 20-year bonds School Dist. No. 8, Calhoun county. Further particulars will be found in the advertising columns.

Tenn., Athens.—\$30,000 5 per cent. 30-year improvement and floating indebtedness bonds are reported sold at \$25 premium. John W. Bayless is Mayor.

Tenn., Cleveland.—\$19,000 5 per cent. 25-year Bradley county school bonds have been purchased at \$235 premium by Powell, Garard & Co., Chicago.

Tenn., Columbia.—Bids will be received until 1 P. M. June 4 by E. E. Erwin, City Recorder and Treas., for \$75,000 5 per cent. 25-30-year high-school bonds; dated July 1, 1914; maturity July 1, 1944; denomination \$100 and \$500.

Tenn., Fayetteville.—\$60,000 5 per cent. 10-20-year sewer bonds were purchased at \$288 premium by First Savings Bank & Trust Co., Nashville.

Tenn., Fayetteville.—\$60,000 6 per cent. 10-20-year sewer bonds were purchased by First Savings Bank & Trust Co., Nashville, at \$288 premium.

Tenn., Chattanooga.—Hamilton National Bank and Citizens' National Bank, Chattanooga, purchased on May 18 \$50,000 4 1/2 per cent. paving bonds; denomination \$1000; dated June 1, 1914; maturity 1944. T. C. Thompson is Mayor.

Tenn., Clarksville.—Mayer, Deppe & Walter, Cincinnati, were awarded, at \$285 premium, \$15,000 school bonds.

Tenn., Lewisburg.—Voted: \$20,000 street-improvement bonds. Address The Mayor.

Tenn., Lewisburg.—\$20,000 street-improvement bonds are to be issued. J. A. Loyd is Mayor.

Tenn., McEwen.—Bids are now being received for \$6000 6 per cent. 12-year sidewalk bonds voted May 2; denomination \$500; dated June 1, 1914. J. R. Morris is Mayor.

Tenn., Pikeville.—All bids received May 12 for \$97,000 5 per cent. 34-year Bledsoe county road bonds were rejected. M. G. Blackburn is Chrmn. Finance Committee.

Tenn., Savannah.—June 20 an election is to be held in Hardin county to vote on \$240,000 railroad-aid bonds. Address County Commrs.

Tenn., Wartburg.—\$275,000 Morgan county



**Merchants-Mechanics National Bank**

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DOUGLAS H. THOMAS President.  
JNO. B. RAMSAY V-P and Chm. Bd. of Dir  
WM. INGLE Vice-President.  
JOHN B. H. DUNN Cashier.  
Capital \$2,000,000 Deposits \$21,670,000  
Surplus and Profits \$2,175,000  
Accounts of Banks, Bankers, Corporations and Individuals solicited  
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DEALT IN  
**F. J. LISMAN & CO.**  
Specialists in Steam R. R. Securities  
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INCORPORATING under broad, liberal, safe and stable Delaware laws. A fully equipped department for proper organization and registration of corporations.  
BANKING AND TRUST department gives special attention to out of town customers' accounts.  
TITLE DEPARTMENT examines and guarantees title to realty throughout Delaware.  
REALTY DEPARTMENT has sites for manufacturing industries. Modern Methods of management of property.  
J. ERNEST SMITH, President and Gen. Counsel.  
WM. G. TAYLOR, Vice-Pres. and Treasurer.  
HARRY W. DAVIS, Vice-Pres. and Secretary  
W. W. PUSEY, 2nd. Title and Real Estate Officer

**The First National Bank**

OF KEY WEST, FLA.  
United States Depository and Disbursing Agent  
Capital - - - \$100,000  
Surplus and Undivided Profits - - - 40,000  
A general banking business transacted  
Special attention given to collections

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CLEVELAND, OHIO  
**BUYERS OF COUNTY CITY SCHOOL AND DRAINAGE BONDS**  
Correspondence Solicited

**JOHN NUVEEN & CO.**

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We purchase SCHOOL, COUNTY and MUNICIPAL BONDS. Southern Municipal Bonds a Specialty.  
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City, County School and Drainage  
FROM MUNICIPALITIES OR CONTRACTORS  
We are in position to pay HIGHEST PRICES. Write or wire us your offerings.  
THE NEW FIRST NATIONAL BANK Assets, \$6,000,000 COLUMBUS, G.

**"We saw your advertisement in the Manufacturers Record"**

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**The First National Bank**

17 South St., Baltimore, Md.  
Capital, - - - \$1,000,000  
Surplus and Net Profits, 450,000  
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Especially well equipped to handle the business of Southern Banks, Corporations, Individuals and Manufacturers. We cordially invite correspondence and interviews.

**The National Exchange Bank**

OF BALTIMORE, MD.  
Hopkins Place, German and Liberty Streets  
Capital, \$1,000,000  
August 9th, 1913, Surplus and Profits, \$764,091.00  
OFFICERS  
WALDO NEWCOMER, President.  
SUMMERFIELD BALDWIN, Vice-Pres.  
R. VINTON LANSDALE, Cashier.  
C. G. MORGAN, Asst. Cashier.  
Accounts of Mercantile Firms, Corporations, Banks, Bankers and Individuals Invited.

**Fidelity and Deposit Company of Maryland**

Home Office: Baltimore  
Total Assets over \$11,000,000.00  
All Kinds and Classes of Surety Bonds and Casualty Insurance  
Largest and Strongest Surety and Casualty Company in the World

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RICHMOND, VIRGINIA  
Capital and Surplus, - - - \$3,000,000  
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FOR SALE Timber, Coal, Iron, Ranch and Other Properties  
Southern States, West Indies, Mexico  
SOUTHERN STATES DEVELOPMENT CO.  
(Brokers) Geo. B. Edwards, Pres.  
Tribune Building NEW YORK, N. Y.  
Confidential Negotiations, Investigations, Settlements, Purchases of Property

**WE BUY**

MUNICIPAL BONDS FROM Municipalities and Contractors  
BREED, ELLIOTT & HARRISON,  
First Natl. Bank Bldg., CINCINNATI, OHIO

**RUSSELL G. RANKIN**

Public Accountant  
Southern Building  
WASHINGTON, D. C.  
REFERENCES: WASHINGTON BANKS

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(State Agricultural and Mechanical College)

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Offers a four years' course leading to the degree of Bachelor of Science in Mining Engineering. Full teaching force, well-equipped shops and laboratories. Adjacent to celebrated Pocahontas coal fields. Total cost per year, including board, room, light, heat, laundry and medical attendance, \$231; to State students, \$231.

J. D. EGGLESTON, Pres.  
Blacksburg, Va.

**Municipal Bonds Purchased**

Correspondence invited from investors wishing to sell their holdings of seasoned marketable Municipal Bonds, and from municipal officials and contractors in connection with entire new issues.

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PHILADELPHIA CHICAGO SAN FRANCISCO

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1027-1033 Calvert Building BALTIMORE, MD.  
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**Capital for Southern Industries**

**Peabody, Houghteling & Co.**  
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NEWPORT NEWS, VA.

ESTABLISHED 1884

State, City and Corporation Securities Purchased Direct or from Holders.  
Temporary Loans Arranged on Such Collateral.

Deposits, Dec. 31, 1912, \$9,132,372.15 Increase, \$1,970,862.54  
Dec. 31, 1913, 11,103,234.69  
WE PAY 3% INTEREST SUBJECT TO CHECK

Largest Capital and Surplus of any financial institution in Maryland or south of Washington, D. C.

**MERCANTILE TRUST & DEPOSIT CO.**  
OF BALTIMORE

A. H. S. POST, President  
FRED G. BOYCE, Vice-President WILTON SNOWDEN, Vice-President  
JOHN McHENRY, Treasurer J. R. WALKER, "

road bonds are voted. Address County Commissioners.

Tex., Angleton.—June 13 an election is to be held to vote on \$60,000 drainage district bonds. Address Comms.' Court.

Tex., Aransas Pass.—\$10,000 5 per cent. 40-year bonds Aransas Pass Independent School Dist. are reported sold at par and accrued interest. Address Board of Trustees of District.

Tex., Aspermont.—\$20,000 water-works bonds are voted. Address The Mayor.

Tex., Austin.—Attorney-General has approved the following securities: \$85,000 street and \$40,000 city-hall and fire-station 5 per cent. 10-40-year bonds of Terrell; \$85,000 6 per cent. 10-40-year Pecos county road bonds; \$1000 5 per cent. 25-year bonds common school Dist. No. 16, Wheeler county; \$10,000 5 per cent. 10-40-year bonds Refugio county common School Dist. No. 10; \$35,000 5 per cent. 40-year bonds Matagorda county Road Dist. No. 7; \$10,000 5 per cent. 5-40-year bonds Jack county common county line school Dist. No. 2; \$1,075,000 5 per cent. 40-year McLennan county road Dist. No. 1; \$4000 5 per cent. 20-40-year bonds Freestone common school Dist. No. 15.

Tex., Austin.—State Board of Education has purchased bonds aggregating \$91,600 as follows: Crosbyton independent school dist., \$18,000; Fruitdale independent school dist., \$2300; Mertens independent school dist., \$1500; Port Aransas independent school dist., \$10,000; Poteet independent school dist., \$16,000; Vandkye independent school dist., \$1600; Westminster independent school dist., \$8500; Comanche county common school dist. No. 26, \$2500; Comanche county common school dist. No. 43, \$1500; Erath county common school dist. No. 6, \$1200; Jim Wells No. 12 \$6000; Travis No. 43, \$2000; Upshur No. 18, \$1500; Atascosa No. 7, \$6000; Donley No. 6, \$3000.

Tex., Barstow.—\$475,000 reservoir-construction bonds Ward County Irrigation Dist. No. 1 are voted. Address County Comms.

Tex., Batesville.—Precinct No. 4, Zavala county, has voted \$10,000 and Zavala county \$20,000 5 per cent. 10-40-year road-improvement bonds. Denomination \$1000. Address O. A. Stubbs.

Tex., Beaumont.—\$140,000 Jefferson county hospital bonds defeated.

Tex., Beaumont.—Election is to be held in Jefferson county June 9 to vote on \$175,000

drainage bonds Dist. No. 5 (Hillebrant Bayou Dist.). Address County Comms.

Tex., Beaumont.—\$41,000 5 per cent. 20-40-year bonds Jefferson county school Dist. No. 11, Jefferson county, were purchased by Well, Roth & Co., Cincinnati, O.

Tex., Belton.—\$105,000 5 per cent. 19-40-year bonds Road Dist. No. 7, Bell county, were purchased by Pearson & Taft of Chicago at par and accrued interest, less \$4200 for placing bonds. W. E. Hall is County Auditor.

Tex., Bonham.—\$250,000 Fannin county road bonds are voted. Address County Comms.

Tex., Calvert.—\$5000 city-hall-completion bonds are voted. Address The Mayor.

Tex., Cotulla.—Election is to be held in LaSalle county to vote on \$450,000 road and bridge bonds. Address County Comms.

Tex., Dallas.—Election to vote on \$30,000 Highland Park school bonds will be held June 13. Address School Board, Highland Park.

Tex., Dallas.—School districts in Dallas county propose to issue bonds as follows: No. 47, \$12,000; No. 67, \$15,000; No. 66, \$15,000. Address County Comms.

Tex., Denison.—Election is to be held June 4 to vote on \$60,000 filtration plant and street-improvement bonds. L. T. McElvany is Mayor.

Tex., Denton.—Election will be held in Denton county July 18 to vote on \$300,000 Road Precinct No. 2 road bonds. Address County Comms.

Tex., Denton.—\$22,500 Mustang Precinct, Denton county, road bonds are reported voted. Address County Comms.

Tex., Floresville.—Election is to be held June 23 to vote on \$600,000 bonds Wilson County Special Road Dis. No. 1, Wilson county. Address County Comms.

Tex., Greenville.—\$400,000 5 per cent. 1-40-year Hunt county road bonds are being offered by W. M. Henly, County Auditor; denomination \$1000; dated Mch. 20, 1914; maturity Mch. 20, 1954.

Tex., Highland Park (P. O. Dallas).—Election to vote on \$30,000 school bonds is to be held June 13. Address School Comms.

Tex., Houston.—The \$250,000 4½ per cent. and \$250,000 5 per cent. Harris county ship-channel bonds were purchased by Bankers' Trust Co., Houston.

Tex., Houston.—Brunner Independent

School Dist., Harris county, has voted \$16,000 high school bonds. Address School Comms.

Tex., Kaufman.—\$150,000 bonds Crandall Justice Precinct No. 8, Kaufman county, were recently voted. Address County Commissioners.

Tex., Kaufman.—June 20 election is to be held in Kaufman Justice Precinct No. 1, Kaufman county, to vote on \$300,000 road bonds. Address County Comms.

Tex., McKinney.—\$15,000 Dist. No. 4, Collin county, road bonds have been purchased at par and accrued interest by Farmers' National Bank of Howe.

Tex., Mineola.—City proposes to issue \$25,000 5 per cent. 40-year water-works bonds voted last November. Denomination \$500. Dated January 1, 1914; maturity, 1954. G. S. Northcutt is Mayor and M. E. Mansell, Clerk. Bonds have not yet been approved.

Tex., Oakville.—Hamilton & White are reported to have purchased \$25,000 road bonds Comms.' Precinct No. 1, Live Oak county. Address County Comms.

Tex., San Antonio.—Bids will be received until 4 P. M. June 1 for \$723,000 1-40-year refunding bonds; denomination \$1000. Fred Fries is City Clerk. Further particulars will be found in the advertising columns.

Tex., Teague.—\$60,000 Teague Independent School Dist. bonds are voted. Address School Trustees.

Tex., Timpson.—Bids will be received until 9 A. M. June 2 for \$17,000 water-works and \$10,000 street 5 per cent. 10-40-year bonds. Address B. J. Hawthorn.

Tex., Uvalde.—Election is to be held June 20 to vote on \$180,000 5 per cent. 40-year Uvalde county road-improvement bonds; denomination \$1000. Address County Comms.

Tex., Wharton.—The \$100,000 5½ per cent. 10-40-year Wharton county road and bridge bonds have been sold to Judge J. T. Sluder of San Antonio at a premium of \$4200.

Tex., Wichita Falls.—Election is to be held July 7 to vote on \$125,000 road bonds Comms. Precinct No. 4, Wichita county, in which Electra is situated. Address County Comms.

Va., Richmond.—Election is to be held in North Richmond May 29 to vote on \$85,000 water, sewer, fire-protection and street-improvement bonds. W. S. Pettit is Mayor.

W. Va., Adamston.—\$20,000 5 per cent. water and sewer bonds are reported to have

been sold to G. Jaeger of Clarksburg at par and accrued interest. J. C. Garrett is Town Recorder.

W. Va., Morgantown.—Election is to be held May 28 to vote on \$150,000 bonds Morgantown Independent School Dist., Monongalia county. Address County Comms.

W. Va., Pennsboro.—Clay Dist., Ritchie county, has voted \$30,000 school-building bonds. Address County Comms.

### FINANCIAL NOTES

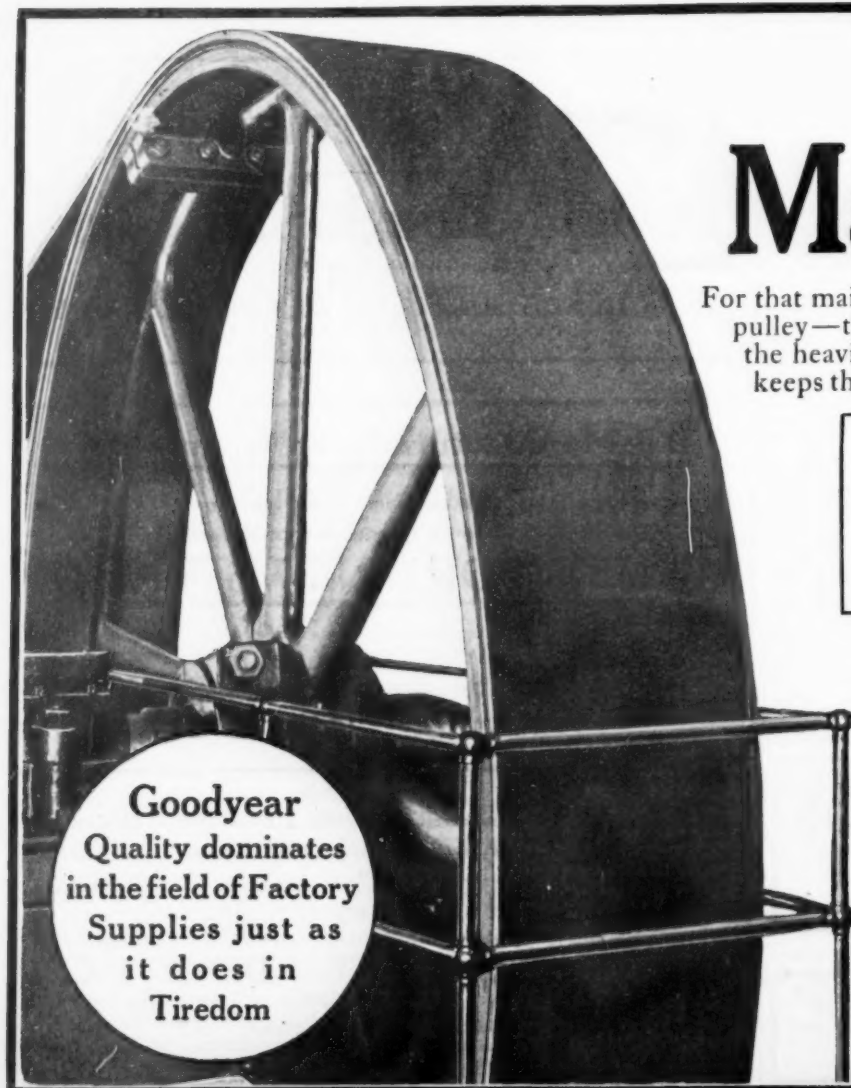
The South Carolina Underwriters' Assn. will hold its 16th annual convention on May 20 and 21 at Sumter, S. C. Samuel M. Grist is Secy.

The Tennessee Bankers' Assn. will hold its annual convention at Chattanooga on May 28 and 29. Fred Collins of Milan is Pres. and F. M. Mayfield of Nashville Secy.

The Virginia-Carolina Chemical Co. has authorized the issue of \$5,000,000 of its new 6 per cent. convertible 10-year debentures (the total amount of which is \$10,000,000), the proceeds of the issue to be used for additional working capital, which is required because of the increase of business and also because sales of products are generally made on long-time credits. Stockholders are offered the option of subscribing to the issue.

Announcement is made at Nashville, Tenn., of the consolidation of the State Bank & Trust Co., R. E. Donnell, Pres., and the Bank of Davidson County, R. W. Comer, Pres. The State Bank & Trust Co. takes over the business of the other institution and continues. The capital of the Bank of Davidson County was \$34,300 paid in, and it had from \$40,000 to \$50,000 of deposits. Several of its directors have become members of the board in the other bank.

The North Carolina Bankers' Assn. at its recent annual convention elected officers for the ensuing year as follows: Pres., Thomas E. Cooper of Wilmington; 1st V.-P., J. L. Armfield of Thomasville; 2d V.-P., W. S. Blakeny of Monroe; 3d V.-P., W. B. Drake of Raleigh; Secy.-Treas., W. A. Hunt of Henderson; executive committeemen, J. W. Ramsey of Rocky Mount, F. N. Egerton of Lenoir, C. E. Taylor of Wilmington, W. H. Worth of Jefferson, and J. R. Long of Bryson City, these latter filling vacancies on the committee.



**Goodyear**  
Quality dominates  
in the field of Factory  
Supplies just as  
it does in  
Tiredom

# The Master Belt

For that main drive—IMPERATOR—the belt that hugs the pulley—the big, strong, *willing* belt that never slips under the heaviest load—the belt of life, power and action that keeps the efficiency of your plant "above par" all the time.

**GOOD YEAR**  
AKRON, OHIO  
**Imperator Belting**

The highest type of unstitched transmission belting. A belt constructed of finest 36-ounce duck, specially woven for maximum strength. Highest grade Para rubber friction thoroughly permeates duck and absolutely obviates ply separation.

Even Goodyear makes no better belting than this. No stretch—no breakdowns—no after expense—no loss through idle equipment.

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Learn more of this belt. Let Goodyear efficiency experts also tell you just what Goodyear belting, hose, valves, packing, etc., to use for exact purposes. There's a big difference between supplies made to meet a price and those made for service. And the *service* kind is cheaper in the end. Costs nothing, involves no obligation, to have the Goodyear Efficiency Department show you how and why. Write today.

**THE GOODYEAR TIRE & RUBBER COMPANY**  
Mechanical Goods Dept.—AKRON, OHIO



# Wood Block Pavement

## The Wonderful Popularity of Wood Block Paving

**O**NE hundred and fifty American cities have used Wood Block pavements during the last 12 years, and there are more than 550 miles of Creosote Wood Block pavements in use and rendering perfect service, with practically no expense for maintenance or repairs.

In 1905 Detroit spent in rounds numbers \$36,000 for Creosote Wood Block paving; in 1907, about \$59,000; in 1908, \$348,000; in 1909, \$537,000; in 1911, \$661,000; in 1912 (estimated) \$926,000.



Church Street—Elm to Chapel, New Haven, Conn.

St. Louis used Creosoted Wood Block pavement at first on small contracts and gradually enlarged the new areas year by year until in 1912, after ten years' experience, St. Louis put down Wood paving on 17 streets, doubling its yardage.

In Minneapolis Wood Block was first used in 1901 on experimental stretches. Each year Wood Block was laid in increasing quantities until on January 1, 1912, the total yardage was 968,000 (61 miles), which is more than all other pavements laid in Minneapolis during the last ten years put together.

In Indianapolis, where experiments were made as early as 1896, the development has continued until Indianapolis now has 38 miles of Wood Block pavement.

In all American cities a total of 100 miles of Wood Block pavement (2,000,000 square yards) was laid during last year. Cities which adopt Wood Block pavements find them popular with the citizens on account of their quietness and cleanliness. They become popular with city engineers when the city begins to realize how Wood Block pavement lasts year after year without showing the slightest effect of traffic.

*Booklets free on request.*

**U. S. WOOD PRESERVING COMPANY**  
165 Broadway, New York City

# Classified Opportunities

## MEN WANTED

**COMPETENT AND RELIABLE** salesmen wanted calling on the hardware, machine, mill and factory supply trade to carry our line of Solder and Babbitt Metals, which has already been introduced. For further particulars apply to Lakewood Metal Co., Newark, N. J.

**WANTED—SALESMAN TO SELL A LINE** of paints on a commission basis; whole or part time. Address No. 1525, care Manufacturers Record, Balto., Md.

**PAINT AND BUILDING SPECIALTY SALESMAN.**—Established paint specialty house has well-paying position open for capable salesman thoroughly familiar with paint-consuming trade among factories, electric railways, county commissioners and large building owners generally. Address The Colorcraft Co., Cleveland, Ohio.

**WANTED—PARTNER.**—Practical man desired; \$10,000 necessary to develop safe, permanent and profitable enterprise in Florida. Splendid opportunity for right man. Address S. Elliott, Lakeland, Fla.

**SALESMAN** wanted for the greatest boon to auto owners; country and State rights open; you don't have to pay for territory, just sell the goods; fine, attractive, money-making arrangements made to the right man. Apply Hydro Carbon Remover Co., 111 East Union, Jacksonville, Fla.

**IF ACTUALLY QUALIFIED** for executive, technical, professional or administrative position between \$2500 and \$12,000, communicate confidentially with undersigned counsel. Give name and address only for preliminary details; strictest privacy and safety assured. R. W. Bixby, Lock Box 134-CL, Buffalo, N. Y.

## PARTNER WANTED

**WANTED—A partner** with \$2000 to become equally interested in a municipal, drainage and general engineering business in a live growing Southern town of 10,000 people, in the midst of the richest agricultural section of America. The engineering work now done by this concern shows net returns of from \$4000 to \$6000 annually, and can be made to pay \$10,000. Address No. 1528, care Manufacturers Record, Baltimore, Md.

**WANTED—A partner** to invest about \$10,000 to \$20,000 dollars in my established fertilizer manufacturing industry; splendid mixing and bagging equipment; large capacity; situated on railroad in the best farming and trucking section in Virginia; one who can give time to the business preferred. Fertilizer, St. Julian Ave., N. & W. Ry., Norfolk, Va.

## AGENCIES WANTED

**WANTED—Accounts** with manufacturers desiring representation in supplies for fruit growers for Virginia; two years' experience in fruit industry. Address No. 1490, care Manufacturers Record, Balto., Md.

**WANTED—Sales agency** for all lines pertaining to builders' specialties; East Tennessee as territory; can furnish satisfactory references to interested concern; modern warehouse facilities. Address Daniel Briscoe, Jr., 325-327 State St., Knoxville, Tenn.

## SITUATIONS WANTED

**WANTED—After May 1,** position as secretary or traffic manager live commercial organization in the South or Southwest; good secretary; better traffic man. Address Traffic Manager, Box No. 252, Durham, N. C.

**WANTED—Position** as superintendent of quarry; 14 years' experience; young man with small family; am hustler and good organizer; can furnish the very best of references. Address M. B. Malone, P. O. Substation No. 2, Charlotte, N. C.

**MAN** with 12 years' experience as manager of sales, estimating and drafting ornamental and structural iron and wire work, is open for proposition; unquestionable references; accurate, industrious, ambitious. W. P. Allen, 163 W. 11th Ave., Columbus, Ohio.

**A CAPABLE** executive man, 42 years of age, with long experience in both executive and operative manufacturing, desires to change for good reasons; preferably to the Southern States; best references. Address No. 1529, care Manufacturers Record, Balto., Md.

**WANT** position as chief engineer of ice machinery or electric plant or large mill, or salesman through the South; strictly sober; can furnish the very best of references. No. 1535, care Manufacturers Record, Balto., Md.

**PLANNING-MILL SUPERINTENDENT** wants to make change; experienced, practical and capable man in estimating, detailing, billing and getting out work; references. No. 1526, care Manufacturers Record.

**WANTED—Accountant** with a number of years' experience, qualified for position of Secretary and Treasurer, desires change of location, preferably not south of Baltimore. Best of references can be furnished. Address No. 1531, care Manufacturers Record.

## RATES AND CONDITIONS

Rate 20 cents per line per insertion. Minimum space accepted, four lines. Maximum space accepted, 25 lines. In estimating the cost, allow seven words of ordinary length to a line. When the advertisement contains a number of long words, proper allowance should be made. Terms: Invariably cash with order; check, postoffice or express order or stamps accepted. No display type used. Questionable or undesirable advertisements will not be accepted. The assistance of our readers in excluding undesirable advertisements is requested. We reserve the right to refuse any advertisement. No patent medicine, whiskey or mining stock advertisements accepted. Rate for special contracts covering space used as desired within one year as follows: 100 lines, 18c per line, 300 lines 16c per line; 500 lines or more, 15c per line.

**SALESMAN**, 30, experienced producer, asphalt, patented pavements, fire engines, street, road and contractors' machinery. No. 1522, care Manufacturers Record, Balto., Md.

**SERVICES OFFERED** by exceptionally efficient young man with 13 years' operating and office experience in General Contracting. Considered a result producer. Best of references from present and former employers as to ability, character and integrity. No. 1537, care Manufacturers Record, Balto., Md.

**A PRACTICAL** machine designer with inventive ability, thoroughly familiar with up-to-date drawing-room practice, experienced on automatic labor-saving machinery, desires to locate in the South. Address 1527, care Manufacturers Record, Baltimore, Md.

**WANTED—A position** by young man of high repute in a good business. Will invest \$1000. Address Baxter Genoble, Pacolet, S. C.

**CONTRACTORS' Engineer and Estimator.** Graduate. Expert designer of structural steel, reinforced concrete, foundations, etc. Experienced in Federal building work. Can report immediately. Address No. 1532, care Manufacturers Record, Balto., Md.

**CONSTRUCTION ENGINEER** desires to locate in South; graduate in civil engineering; 4 years' experience in dams, concrete buildings, street and road paving, water pipe and surveys. Address No. 1530, care Manufacturers Record, Balto., Md.

**HAVE** had a number of years' experience in purchasing, estimating, superintending, and in managing general affairs connected with the light builders' iron, structural steel, brass, bronze and drawn metal moulding work. Familiar with sales work (personal and correspondence) among architects and builders. Now employed, but desire position with reputable firm. Age 37; unmarried. No. 1534, care Manufacturers Record.

**WANTED—Position** with a good reliable building material company to handle city trade, or with manufacturer of building material to travel; thoroughly familiar with Virginia and North Carolina architects and contractors; have 12 years of success in the business and employed at present, but have good reasons to make a change. Address No. 1533, care Manufacturers Record, Balto., Md.

## EDUCATIONAL

**RENSSELAER POLYTECHNIC INSTITUTE, TROY, N. Y.**—Courses in Civil, Mechanical, Electrical and Chemical Engineering and General Science, leading to the degree of Civil Engineer (C.E.), Mechanical Engineer (M.E.), Electrical Engineer (E.E.), Chemical Engineer (Ch.E.), and Bachelor of Science (B.S.). Also special courses. Splendidly equipped new engineering laboratories. Send for catalogue to Registrar.

## SAWMILL DIRECTORY

**DIRECTORY OF SAWMILLS**, covering States of Alabama, Arkansas, Kentucky, Louisiana, Mississippi, Tennessee and West Virginia. Index on each page shows where plant is located; its capacity; railroad upon which located; what the plant turns out and what its equipment consists of, that is, whether mill is band or circular, whether it has electric-light plant, logging railroad, etc. States specifically what kind of lumber is produced, covering more than 50 different kinds. Sold separately by States at \$3 per State, or \$15 for all eight States. More than 10,000 mills reported on. Address Southern Lumberman, Nashville, Tenn.

## BUSINESS OPPORTUNITIES

**WANTED TO CONNECT** with brokers or individuals who can place \$100,000 of first mortgage bonds to build tourist hotel. Bonds secured by \$200,000 additional values. Liberal commission allowed. Address W. E. Sinclair, Safety Harbor, Pinellas County, Florida.

**TO CLOSE ESTATE.**—12 acres, with improvements, near Delaware Bay, 70 miles from Philadelphia; excellent for lumber, coal, ice or grain business; ice plant needed; good location for physician; deep salt water; valuable wharf opportunities. Price low. Send for circular. Charles W. Reed, 805 East Capitol St., Washington, D. C.

**CLAY TRACT** of 41 acres on Tidewater & Western R. R. at crossing of county road about one mile from Bermuda on James River, known as Epps' Crossing. Tract has been tested over its entire surface, showing clay exists to the depth of 4 1/4 feet and covers entire property with overburden of 3 to 9 inches. The State Geologist reports as being the best found on the coastal plain, suitable for pipe, tile, pavers, fireproofing, and stiff-mud and dry-press face brick. Burns a dark cherry red, drying easily and safely.

This valuable clay bed, with a manufacturing site at Chester, for sale reasonable. The manufacturing site, consisting of between 3 and 4 acres, is on A. C. L. R. R. at junction of Tidewater & Western R. R., affording splendid shipping facilities to North or South by A. C. L. N. & W., S. A. L. T. & W., or by water. With proper development should prove a good money-maker.

Full particulars upon request. Address Central Realty Co., Richmond, Va.

**OPPORTUNITY.**—\$10,000 given to right party who will build suitable hotel in growing city of 6000 population. For particulars correspond with E. V. Emerson, Secretary Georgetown Hotel Co., Georgetown, S. C.

**WANTED—To connect** with individuals who will be willing to invest \$15,000 in a very successful graphite company in the best section in the South. The company is most successful in selling its product, and with additional capital can enjoy increased sales at a large profit. The best references can be given. Address P. O. Box 732, Atlanta, Ga.

**WANTED—A good office man,** business manager or partner, for a wholesale and retail hardware and builders' supply business of long standing with large established trade. An investment of \$10,000 or \$15,000 will give investor an opportunity of lifetime. Owner of control willing to retire from active management. Box 179, Richmond, Va.

**ASHEVILLE BUSINESS OPPORTUNITY.** Treasurer wanted with \$10,000 to invest in well-established manufacturing plant desiring to increase output. Box 1088, Asheville, N. C.

**OPPORTUNITY** for the right man to interest himself in water-works, electric plant and ice plant combined in Angleton, Texas. Write F. Kiber.

**7,000,000 TONS** semi-anthracite coal, Eastern Oklahoma; 900 acres; 16-year lease; two railroads; cheap; terms. Limekiln; Oklahoma; trade established; cheap. C. N. Gould, 408 Terminal Building, Oklahoma City, Oklahoma.

**FOR SALE—State rights,** patent just issued, unequalled mail-order article; unlimited commercial value; no competition; big profits; millions need it. Address P. O. Box 605, Charleston, S. C.

## CRUISING YACHT

**FOR SALE—Cruising cabin yacht** "Grace"; length 50'; beam 10'; draft 2' 9"; speed 12 miles; net tonnage 9; Twentieth Century 4-cylinder 4-cycle 30 H. P. engine; outside finish, mahogany and oak; inside finish, mahogany; sleeping accommodations 6; galley midship; attractive and handsome yacht. For further particulars address J. Ross Hanahan, Charleston, S. C.

## MODELS

**MODELS MADE FOR INVENTORS.**—General machine work. Designing and perfecting. Developing automatic devices and machinery. In a position to do all kinds of light tool and machine work. Prices reasonable. Estimates cheerfully given. Ideal Machine Works, 64 Ann Street, New York City.

## COUNTRY HOME

**ON ACCOUNT** of leaving State, I will sacrifice my Ideal Country Home, Laurel, Md., near Baltimore and Washington Boulevard, 24 acres; improved by 10-room dwelling with attic and cellar; all modern conveniences; abundance of fruit; barn, with water; poultry-houses and other outbuildings; unexcelled water; location high and healthy; less than one hour to heart of Baltimore or Washington; to be appreciated needs but to be seen. Price, \$7000; cash, \$3200. T. M. Baldwin, Jr., Laurel, Md.

## FACTORY SITES

**FOR SALE—8 acres,** close in to Bessemer. Has 3 acres deep lake; water always clear; joins railroad; 3 blocks of car line. Ideal place for mfg. plant. Box 17, Bessemer, Ala.

**FOR SALE—Excellent manufacturing site;** deep-water front; Belt Line R. R. facilities, connecting with seven railroads; car lots handled for \$1.50. Jos. A. Wallace, 211 Berkley Ave., Norfolk, Va.

**CHARLOTTE, THE RAILROAD CENTER** of the famous Piedmont section of the Carolinas—the hydro-electric center, with its unlimited supply of cheap power; the manufacturing center, having now within radius of 100 miles more than 450 cotton mills, besides numerous factories of other kinds—in the growing faster than any other city in the Carolinas. We own about 100 acres within 12 blocks of the business center of the city, having exceptional good truckage facilities with both the interurban and all the steam roads, which we have developed for manufacturing and industrial sites, and are offering exceptional opportunities to factories and manufacturing plants of all kinds, both large and small. Write for further information. Fabrick Development Co., 214 S. Tryon St., Charlotte, N. C.

## INDUSTRIES WANTED

### SCREEN DOOR AND WINDOW FACTORY

**WANTED—Screen Door and Window Factory.** Splendid opportunity; elegant field. Cheap power; good labor; 400-mile-radius territory unoccupied. Chamber of Commerce, Anderson, S. C.

### MISCELLANEOUS

**FREE SITE** given for factory; electric power cheap; no city tax; 1 railroads; plenty of labor. Berkeley Land Company, Martinsburg, W. Va.

**LAKE CITY, ARKANSAS,** wants a slack barrel, stove factory and a hoop mill, and parties to manufacture poles and piling. Correspondence solicited. Address John W. Scooby, Corresponding Secretary for Lake City Commercial Club, Lake City, Arkansas.

**BLUEFIELD, WEST VIRGINIA,** the gateway to the vast Pocahontas coal fields, and the distributing point for half a million contented laborers, needs an overall factory, needs a mine implement factory and needs a brick plant. Address C. T. Boykin, Secretary Bluefield Chamber of Commerce.

**DENISON, TEXAS,** throws down the gauntlet to industry with a fund of \$100,000 pledged to encourage and assist in the establishing of new enterprises. Denison has a population of 21,600 and a monthly industrial payroll of \$300,000. The city is surrounded by a splendid trade territory in Texas and Oklahoma containing a population of 252,000 within a radius of 50 miles, reached by five railroads and one interurban. Denison has natural gas and other cheap fuel, also an abundance of water. Address W. N. King, Secretary Denison Chamber of Commerce.

## INDUSTRIAL PLANTS FOR SALE

### ELECTRIC LIGHT PLANT

**ASSIGNEE MUST SELL** electric-light plant, complete, 20-year franchise, in a good location. A good factory site, with 2 large 2-story buildings, located on main line of Frisco R. R.; 12 machines, used in the manufacturing of screen doors. Address L. L. Thompson, Assignee, Lilbourn, Mo.

### RETAIL LUMBER YARD

**FOR SALE—Retail lumber yard** in good town of 4000 in Shenandoah Valley, Virginia, the junction of two trunk lines of railroad; doing a good business. About \$12,000 will buy entire plant, including stock, which is all bright and new. Must sell. Address owner, F. Preston Jones, Basic City, Va.

### COTTONSEED OIL MILL

**FOR SALE—Modern, well-equipped, up-to-date,** ideally located 3-press (Callahan) cottonseed oil mill; operation 2 years; full description on request. A bargain for quick buyer. Original cost, about \$75,000. Salisbury Realty & Insurance Co., Salisbury, N. C.

### WAGON PLANT

**FOR SALE—Wagon plant,** doing a fine business and well established, in fine hardwood section; labor reasonable; well equipped; 5 1/2 acres; several hundred feet railroad frontage; at a price that is interesting. For further information address Postoffice Box 239, Abingdon, Va.

### MACHINE SHOP

**FOR SALE.**—Located in Virginia, on two trunk-line railroads. Was built for the manufacture and repair of contractors' equipment, and has been successfully operated for five years, but owing to change in business of owners, will sell at low price. Equipped with 20-ton crane and all modern machinery. A splendid opportunity for manufacturing. Abundant supply of good labor. Freight rates on Virginia cities basis. Will furnish details on inquiry. Address Box 920, Baltimore, Md.



# Classified Opportunities

## ROLLER MILL

**ROLLER MILL FOR SALE.**—A 3 double-shaft roller mill, no dwelling; no mill within 6 miles; wheat-growing country; electric power; on C. V. R. R. A. J. Lemaster, Bedlington, W. Va.

## SHEET METAL SHOP

**FOR SALE.**—A complete, modern sheet metal shop, equipped with power press and shear, in section where large sheet metal business can be developed. The best location in the Southwest for manufacture of sheet metal products. Established 8 years. Shop now operating. Other business demands owner's attention. Price and terms liberal. No. 1536, care Manufacturers Record, Balto., Md.

## SAND-LIME BRICK FACTORY

**FOR SALE.**—A complete sand-lime brick factory, capacity 20,000 per day; will sell as a whole or in part; 125 H. P. engine and boiler; 4-mold Chisholm-Boyd press; Stevenson 3-ft. dry pan; 72-ft. cylinder; full equipment of cars; belting, shafting, etc. Address Cumberland Brick Co., Cumberland, Md.

## MINERAL AND TIMBER LANDS, WATER POWERS AND MISCELLANEOUS PROPERTIES

**FLORIDA INVESTMENTS.**—If interested in phosphate, kaolin, clays, lime, timber, turpentine, mill or colonization proposition, or lands for farming, trucking or fruit growing, write J. H. Brinson, Ocala, Fla.

**202½ ACRES,** kaolin deposit between 35 and 50 acres, \$15,000. **202½ acres** Fuller's Earth deposit, \$15,000. Southern Ins. & Realty Co., Georgia Life Bldg., Macon, Ga.

**FOR SALE ON REASONABLE TERMS:** 25,000 acres, Escambia county, Alabama, especially adapted for colonizing.

15,000 acres highest grade Southern hardwood timber, located Southern Mississippi.

14,000 acres, located in Southern Alabama; about 30,000,000 ft. L. L. yellow pine on 7500 acres of this. Land is especially desirable for agricultural purposes.

24,000 acres coal and timber land, located on Frisco Railroad west of Birmingham.

5000 acres of hardwood timber, located on the Alabama River not far from Mobile.

5000 acres, especially desirable for citrus fruit growing, including a townsite located just across the bay from Mobile.

10,000 acres, located in North Baldwin, especially adapted for a ranch.

I own and control all of the above-described properties, and in addition I handle properties as a broker, so that I am in a position to meet most any requirements in Southern acreage property. Address H. H. Wefel, Jr., Mobile, Alabama.

## MISCELLANEOUS PROPERTIES

**STOCK FARMS,** dairy farms, grain and grass farms, timber land and business houses for sale. Colonial residences. Prices range from \$10 to \$50 per acre. Particulars and descriptions sent on application. C. J. Meetez & Co., Manassas, Va.

## BRICK CLAY PROPERTY

**BRICK CLAY.**—Attention, Brick Men! Have located within five miles of Atlanta large supply fine brick clay; excellent railroad facilities. This property is splendid location for Southern market. Can be bought reasonably considering actual value. Estate of James E. Lynch, P. O. Box 519, Atlanta, Ga.

## PHOSPHATE ROCK DEPOSIT

**FOR SALE.**—500 acres of blue rock phosphate land near Mt. Pleasant, Tenn., containing 2,000,000 tons running from 88 to 72% bone phosphate of lime. Spur of L. & N. R. R. runs through it. Capt. W. N. Hughes, U. S. A., 523½ Broadway, Nashville, Tenn.

## PHOSPHATE FOR SALE

**PHOSPHATE.**—For Sale—3,700,000 tons of high-grade pebble phosphate. Also, 1,500,000 tons high-grade hard rock phosphate. Pebble phosphate in Polk county near transportation, and hard rock in Citrus county, Florida. Wall Realty & Investment Co., Tampa, Fla.

## COAL AND FARM LAND

**BETWEEN** seven and eight thousand acres within from fifteen to twenty-five miles of Richmond, Va. Part of the land known to be underlain with six feet of coal. All in the coal basin. Smooth land, well adapted to farming. Price in fee, fifteen dollars per acre. Will divide. R. B. Chaffin & Co., Inc., Richmond, Va.

## COAL AND TIMBER LANDS

**223 ACRES** of virgin timber lands near Shirley, Ark., on railroad; will cut about 15,000,000 ft.; two-thirds pine, one-third oak. Logging conditions good. Owner must sell. We have several large tracts of timber, coal and agricultural lands for sale in Tennessee and other Southern States. Correspondence solicited. Upper Cumberland Realty Co., 1006 Stahlman Bldg., Nashville, Tenn.

## TIMBER FOR SALE

**FOR SALE.**—300,000,000 feet short-leaf pine, located on railroad and river. For price and terms address A. M. Treadwell, Holston Bank Building, Knoxville, Tenn.

## TIMBER LAND FOR SALE

**TWO HUNDRED THOUSAND (200,000)** acres timber land in Florida, containing over 5,000,000 feet of original growth pine; has been cruised by expert; placed on the market for the first time at a very low figure.

**South Carolina timber;** 15,000 acres on the Atlantic Coast Line and Southern Railroad. Estimated 65,000,000 feet short-leaf pine. For price and full particulars apply to Johnson's American and Foreign Real Estate Exchange, 945 Pennsylvania Avenue, Washington, D. C.

**HARDWOOD TIMBER TRACTS,** 1000 acres up, direct from owners; cut 4000 feet white oak to acre; \$8 acre in fee; near proposed railroad, Newton county. Also have cheap stock and colonization tracts. Fredricks, Springdale, Arkansas.

**VIRGIN PINE AND MIXED OAK, ETC.,** thick growth; about 2000 acres; located between Alexandria and Fredericksburg, Virginia; on railroad and near tidewater; timber only for sale on best offer after investigation. R. C. Barsch, Room 601, 103 Park avenue, New York, N. Y.

**A FEW GOOD TRACTS** in Southern States at prices attractive for investment or operation. Hemlock, spruce, oak, poplar, gum, cypress. Real Estate Investment Co., 816 Connecticut Ave., Washington, D. C.

**TIMBER AND TIMBER LANDS IN ALABAMA.**—Tracts of virgin pine and hardwood, 5000 to 20,000 acres each; fee simple; all finely located; 9000-acre tract pierced by main trunk-line railroad and admirably situated for colonization; cut good; prices right. Correspondence solicited from parties meaning business; otherwise don't write. T. M. Bradley, 1029 First National Bank Bldg., Birmingham, Ala.

**5400 ACRES** of virgin hardwood timbered land in East Tennessee, \$10 per acre; would exchange. Farm Realty Co., 325 Jefferson Co. Bank Bldg., Birmingham, Ala.

**TIMBER TRACTS** located for manufacturers or investors by practical timbermen. Correspondence solicited. Jo A. Parker, Parma, Mo.

**MANUFACTURER** desiring medium size tract of yellow pine timber at favorable price can learn of something to his advantage by addressing Box 27, Ellisville, Miss.

**NORTH CAROLINA TIMBER LAND FOR SALE.**—4000 acres Timber Land in Western North Carolina, mostly poplar, oak and chestnut, first growth, laying 4 miles, level land to go, from Southern Railroad Station, direct from owner. H. Federer, West New York, N. J.

**FOR SALE.**—We have for sale two thousand and fifty acres of land, containing about eight million feet of timber, nearly all long leaf. The land is the very best in the State, yielding a bale of cotton to the acre without fertilizers. Price \$15 per acre. Apply, if interested, to the St. George Land & Investment Company, 256 Meeting Street, Charleston, S. C.

## FARM AND TIMBER LANDS

**FARM AND TIMBER LAND** on the easy-payment plan; some small improved tracts; good for cotton, corn, alfalfa and grain. Prices from \$4 to \$25 per acre. W. Knight, Real Estate Dealer, Bigelow, Arkansas.

**4910 ACRES,** Shannon county, Mo.; well timbered; watered with springs; 70 per cent. tillable; on railway. Price \$7 an acre; part cash; balance income property. W. P. Campbell, St. Joe, Arkansas.

**HAVE** select list of large and small farm properties, also timber, coal and colonization tracts, and a large list of income properties for sale and exchange. Let me know your wants. Arthur M. Connor, 224 Oxford Bldg., Washington, D. C.

**4800 ACRES** of very fine land in the truck-farming section, 65 miles south of Norfolk, Va., in Burtee Co., N. C., price \$10 per acre. 65 farms in 55 miles of Richmond, Va., and 35 miles of Petersburg, Va., and 32,000,000 ft. of timber and land in Tenn., price \$18 per acre. And large coal field in W. Va., on broad-gauge railroad. Send for description. For sale by L. H. Yancey, Clarksville, Va.

**646 ACRES** Prince William Co., Va., 4 miles from railroad; second growth pine and white oak; good farm lands when cleared. \$30 per acre in fee.

**210 acres** Fairfax Co., Va., adjoining small town; will make valuable farm, or suitable for sub-division. \$30 per acre in fee.

**Southern Farms** and timber lands. Frank Van Sant, 87 Southern Building, Washington, D. C.

## COLONIZATION LAND

**FOR COLONIZATION PURPOSES.**—Sixteen thousand acres cut-over land in fruit and truck belt Eastern Texas; liberal terms. This presents opportunity to quickly double your money. Have smaller tracts. Correspondence invited. E. P. McKenna & Co., Tyler, Tex.

**GO WEST.**—For sale, a 14,000-acre colonization tract. Will retail \$12.50 to \$25 per acre. This tract is scattered with fine farm homes and showing splendid crops which we raise in that territory. This is a bargain for Eastern real estate colonization agents or speculators. \$8 per acre. Write for terms. Will split tract to suit. 622 Omaha State Bank Bldg., Omaha, Neb.

## COLONIAL ESTATES AND STOCK FARMS

**COLONIAL ESTATES AND STOCK FARMS** in Virginia. Green & Redd, Richmond, Va.

## MISSISSIPPI PLANTATIONS

**MANY** fine plantations in Yazoo-Mississippi Delta for \$20 to \$50 per acre; known as most fertile section on earth; will be worth many times the money after Government takes over levees. Correspondence of speculators or homeseekers solicited. Peter Stubbfield, Yazoo City, Miss.

## FRUIT, FARM AND TRUCK LANDS

### ALABAMA

**240-ACRE ALABAMA PECAN FARM.**—1600 pecan trees, every variety of fruit, nut and ornamental trees; 30 acres of clover, 2 large pastures; 50-year supply of fuel; fine residence, excellent buildings, 5 wells. Will sell part or all. Safe, profitable investment. Good healthy home. John P. Brown, Carney, Ala.

### ARKANSAS

**A FARM** of 240 acres, 7 miles from Hamburg, Ark., improved; 100 acres cleared; 140 acres virgin timber. Soil chocolate loam, very fertile, 2 miles from Fountain Hill, a shipping point. Land in the county being leased for oil. Will sell for \$30 per acre or lease for \$2 per acre. Dr. H. P. Mikel, Gladstone Hotel, Kansas City, Mo.

### FLORIDA

**FLORIDA.**—\$1 per acre cash, balance on terms to suit. Choice 20-acre tract orange, grapefruit and trucking land, \$30 per acre to quick buyer. Address Owner, 235 N. 29th St., Philadelphia, Pa.

**THREE MONTHS FREE.**—Subscription to the Indian River Farmer. For truckers, fruit growers, general farmers, and folks who want to know about Florida. Address Indian River Farmer, Dept. "V-1," Vero, Fla.

**THE PALATKA FARMS COMPANY** of Palatka, Florida, offers to homeseekers the very superior advantages of splendid soil, adapted to potatoes, corn and trucking, or that for oranges and grapefruit, or for combination of both, with location unsurpassed, lying along the beautiful St. Johns River, 2 miles of Palatka, an up-to-date city of 8000 population. It boasts of electric-light and gas plants, four railroads and cheap river transportation. Write for literature. P. J. Becks, Palatka, Fla.

**FLORIDA LAND FOR SALE.**—I have forty acres of land for sale, best black soil in the State, three miles from Arcadia. Surrounding and adjoining my land are some of the finest grapefruit and orange groves in the State. Just half a mile distance is one of the largest nurseries in the State. Am compelled to sell. I offer at a sacrifice of \$50 per acre. For further particulars address Isidore Marcus, Box 996, Jacksonville, Fla.

**AN EXCELLENT PROPERTY FOR HOLDING AS INVESTMENT OR FOR IMMEDIATE DEVELOPMENT.**—1120 acres in Suwannee county, Florida, about 3 miles east of O'Brien, a town of 300 population, with good school, churches, sawmill, turpentine still, good stores and other advantages, the main line of A. C. L. R. R. passing directly through it.

It is situated in a general farming section where excellent crops of corn, cotton, sugarcane, sweet potatoes, velvet beans, cowpeas, and numerous others are raised. Two main roads leading to O'Brien cross the land, and a number of improved farms adjoin it.

The soil is Norfolk loam with clay subsoil, and when properly cultivated will produce all the crops for which this section of Florida is noted.

This property is offered at \$6 per acre on following terms: One-fourth cash, and balance in 2 and 3 years, deferred payments to be secured by mortgage at 8%. A small discount may be arranged for all cash.

Address George L. Colburn, Lake City, Fla.

### MARYLAND

**SALT-WATER-FRONT FARMS.** Talbot Co., Md., the Venice of America; few hours of Balt., Wash., Phila., N. Y. Catalog. W. D. J. Morris & Bro., St. Michaels, Md.

**84-ACRE FARM** at Walker's Station, N. C. R. R.; dwelling and all necessary outbuildings; orchard; convenient to churches, school, etc. W. R. Barnes, 53 Gunther Bldg., Balto., Md.

## MISSISSIPPI

**2500 ACRES,** 750 acres in cultivation, 2½ miles from station on I. C. R. R. in Northern Mississippi; creek bottom, not subject to overflow; one 2-story 8-room residence; 24 tenant-houses. Price \$20 per acre; easy terms; \$20,000 worth of property will be taken in trade. Lux McFadden, Four States Land & Timber Company, 150 Madison Avenue, Memphis, Tenn.

## TENNESSEE

**SPLENDID OPPORTUNITY** to double your money in a short time. 300 acres good productive unimproved land, all subject to cultivation; everlasting running water; no rock, swamp land or steep hill land. Adjoining land, partly in cultivation, now being held at \$20 per acre. Located immediately on railroad and main public road, one mile of station, with good school, churches, etc. Price \$12.50 per acre; easy terms. For further information address W. C. Thomson, Fayetteville, Tenn.

## VIRGINIA

**56-ACRE FARM** on macadam road, 3 miles from town of 7000. Land lays beautifully. Excellent spring, orchard, 7-room house, barn and outbuildings. Particularly suitable for truck, poultry and dairy farm. Price \$6000. Address Mark C. Baue, Pulaski, Va.

## MACHINERY AND SUPPLIES

**FOR SALE.**—Two sets of 30"x10" Allis-Chalmers crushing rolls, complete, with hoppers and pulleys, ready to set up and start crushing stone; a great bargain. Address F. L. Robbins, Salisbury, N. C.

## WAGONS FOR SALE

**WAGONS FOR SALE.**—Ten Troy dump-bottom reversible traction wagons, 3½-yard, with 10-inch tires; have been used four months. Geo. G. Henderson, care Manufacturers Record, Balto., Md.

## FINANCIAL

**FOR SALE.**—\$4000 5-year 6 per cent. real estate coupon bonds of the Farm Land & Coal Company, secured by farming lands in North Dakota. Dated February 1, 1912. Due February 1, 1917. Interest payable February 1 and August 1 at Forest City National Bank, Rockford, Ill. For sale as a whole or in multiples of \$800. Price, 90 and interest to yield about 10 per cent. J. J. McCloskey Realty Company, Asheville, N. C.

## PATENT ATTORNEYS

**EUGENE C. BROWN, ENGINEER AND PATENT LAWYER,** Suite 40 Victor Building, Washington, D. C. Member Bar U. S. Supreme Court. Patents and Trademarks. Inventions are considered both from Engineering and Legal standpoints in my prosecution of patents. An experience of over 9 years as Examiner in U. S. Patent Office and over 6 years as Patent Expert in important patent suits are my special qualifications. Reports upon validity and infringement. Send sketch of invention for advice.

**PATENTS.**—Herbert Jenner, patent atty. and mechanical expert, 606 F St., Washington, D. C. I report free of charge if a patent can be had and its exact cost. Send for circular.

**PATENTS THAT PROTECT.**—Careful, honest work in every case. Patent your ideas; they may bring you wealth. 64-page book free. FitzGerald & Co., 817 F street, Washington, D. C. Established 1878. Send for our book.

**PATENT YOUR INVENTION.**—Send sketch for free expert search and report as to patentability. Books on inventions and patents, and book of references from congressmen, manufacturers, bankers and inventors, sent free. John S. Duffie & Co., Patent Attys., 620 F St. N. W., Wash., D. C.

**"PATENTS AND PATENT POSSIBILITIES"** is a 72-page treatise which tells all about patents, what to invent and where to sell it. It gives honest advice to inventors, and is full of valuable and interesting information. Write for it today! It is free. H. S. Hill, 916 McLachlen Bldg., Washington, D. C.

**PATENTS THAT PROTECT AND PAY.** Advice and books free. Highest references. Best results. Promptness assured. Send sketch or model for free search of Patent Office records. Trade-marks registered. Watson E. Coleman, Patent Lawyer, 624 F St., Washington, D. C.

**PATENT YOUR IDEAS.**—\$9000 offered for certain inventions; book, "How to Obtain a Patent" and "What to Invent," sent free upon request; send rough sketch for free report as to patentability. We advertise your patent for sale at our expense. Chandler & Chandler, patent attorneys, 978 F St., Washington, D. C.

**PATENTS** secured or Fee returned. Send sketch for free report as to patentability. Guide book and what to invent, with valuable list of inventions wanted, sent free; \$1,000,000 offered for one invention; \$16,000 for others. Patents secured by us advertised free in World's Progress; sample free. Victor J. Evans & Co., Washington, D. C.

# PROPOSALS

BOND ISSUES

BUILDINGS

PAVING

GOOD ROADS

## GOVERNMENT PROPOSALS

**UNITED STATES CAPITOL, Washington, D. C.** Sealed proposals, in duplicate, for the following fuel for the United States Capitol Power Plant for the fiscal year ending June 30, 1915, will be received at the office of the Superintendent U. S. Capitol Building and Grounds until two o'clock P. M. on the first day of June, 1914, and at that hour opened in the presence of those bidders who elect to be present, viz.: 25,000 tons, more or less, of bituminous coal. Bidders must specify names of coal and location of mines from which obtained. All coal to weigh 2240 pounds to the ton, and to be delivered on the siding of the Capitol Power Plant, situated in Garfield Park, Washington, D. C., at such times and in such quantities as may be ordered by the undersigned. All coal will be inspected and weighed by a Government Inspector, designated by the undersigned, for which no charge will be made to the contractor. Each proposal must be accompanied by a certified check for \$100, payable to order of the Superintendent U. S. Capitol Building and Grounds, to be forfeited to the United States upon refusal or failure of the bidder to enter into any contract within 30 days after being required to do so. Checks will be immediately returned to unsuccessful bidders, and to successful bidder upon execution of contract in accordance with these specifications and filing of bond for faithful performance of the conditions thereof, with satisfactory sureties. All coal must be shipped in self-cleaning hopper-bottom cars. If the contractor delivers coal in cars of a type other than that heretofore described, the Superintendent reserves the right under conditions existing at that time to charge against the contractor the excess cost of handling the coal with the present equipment at the Power Plant. The Government will take all necessary steps for testing, technically and practically, all the coals proposed. In event of delivery of contractor of unsatisfactory fuel, the undersigned may buy coal in open market, and excess in cost over contract price will be charged against the contractor. The contract is awarded subject to an appropriation by Congress to meet the expense. The right is reserved to reject any or all proposals. Bids should be indorsed "Proposals for Coal" and addressed to the Superintendent U. S. Capitol Building and Grounds. By order of House Office Building Commission, ELLIOTT WOODS, Superintendent U. S. Capitol Building and Grounds.

**PROPOSALS FOR MATERIAL FOR OIL-HANDLING PLANTS, INCLUDING PUMPS, HEADERS, VALVES, PIPE, AND FITTINGS; CENTRIFUGAL PUMP UNIT, COMPLETE WITH MOTOR, AUTOMATIC STARTING APPARATUS, FLOAT SWITCH, ETC.; ALTITUDE GAUGES, COMPOUND GAUGE, PAVING BRICK, AND PILES.** Sealed proposals will be received at the office of the General Purchasing Officer, Panama Canal, Washington, D. C., until 10:30 A. M. June 11, 1914, at which time they will be opened in public, for furnishing the above-mentioned articles. Blanks and general information relating to this Circular (No. 354) may be obtained from this office or the offices of the Assistant Purchasing Agents, 24 State Street, New York City; 614 Whitney-Central Building, New Orleans, La.; and 1086 North Post Street, San Francisco, Cal.; also from the U. S. Engineer Offices in the following cities: Seattle, Wash.; Los Angeles, Cal.; Baltimore, Md.; Philadelphia, Pa.; Pittsburgh, Pa.; Boston, Mass.; Buffalo, N. Y.; Cleveland, Ohio; Cincinnati, Ohio; Chicago, Ill.; St. Louis, Mo.; Detroit, Mich.; Milwaukee, Wis.; St. Paul, Minn.; Chattanooga, Tenn.; Louisville, Ky.; Mobile, Ala.; and Galveston, Tex.; Commercial Club, Kansas City, Mo.; Chamber of Commerce, Quincy, Ill.; and Commercial Club, Tacoma, Wash. C. S. ROGGS, Major, Corps of Engineers, U. S. A., General Purchasing Officer.

**DEPARTMENT OF THE INTERIOR, Washington, D. C., May 8, 1914.** Sealed proposals in duplicate will be received at this Department until 2 P. M. Wednesday, June 17, 1914, and then opened in the presence of such bidders as may attend, for the furnishing of all labor and materials required to install automatic sprinkler equipment in the Land Office, Patent Office and Pension Office buildings of the Interior Department in Washington, D. C., in accordance with drawings and specifications to be had on application at this Department. Each proposal must be accompanied by a certified check for \$500, payable to the Secretary of the Interior. The right is reserved to reject any or all bids, to waive technical defects, or to accept one part and reject the other, as the interests of the Government may require. Applicants for plans will be required to deposit with the Department certified check for \$5, payable to the Secretary of the Interior, as a guarantee that they will return the plans in good condition. Proposals must be marked "Proposal for Automatic Sprinkler Equipment" and be addressed to the Secretary of the Interior. LEWIS C. LAY-LIN, Assistant Secretary.

**TREASURY DEPARTMENT, Supervising Architect's Office, Washington, D. C., May 6, 1914.** Sealed proposals will be opened in this office at 3 P. M. June 17, 1914, for the construction complete (including mechanical equipment, lighting fixtures and approaches) of the United States postoffice and courthouse at Jackson, Ky. Three-story and basement building; ground area, 5000 square feet; first floor fireproof; stone, ornamental terra-cotta and brick facing; composition and slate roof. Drawings and specifications may be obtained from the custodian of site at Jackson, Ky., or at this office, in the discretion of the Supervising Architect, O. WENDEROTH, Supervising Architect.

## PROPOSAL ADVERTISING INFORMATION

RATE: 20 cents per line per insertion.

PUBLICATION DAY: Thursday.

FORMS CLOSE 9 A. M. Wednesday. Copy received later cannot be published until issue of following week.

NIGHT LETTER: When too late to send copy by mail to reach us by 9 A. M. Wednesday, forward by night letter.

### THE DAILY BULLETIN OF THE MANUFACTURERS RECORD:

Published every business day; gives information about the industrial, commercial and financial activities of the South and Southwest.

The Daily Bulletin can be used to advantage when copy cannot reach us in time for publication in the Manufacturers Record before bids are to be opened, or when daily publications are necessary to meet legal requirements.

The same rate applies—20 cents per line per insertion.

**TREASURY DEPARTMENT, Supervising Architect's Office, Washington, D. C., May 6, 1914.** Sealed proposals will be opened in this office at 3 P. M. June 17, 1914, for the construction complete (including mechanical equipment, interior lighting fixtures and approaches) of the United States postoffice at Burlington, N. J. Two-story and basement building; ground area, 3800 square feet; construction, non-fireproof; stone and brick facing; composition and slate roof. Drawings and specifications may be obtained from the custodian of site at Burlington, N. J., or at this office, in the discretion of the Supervising Architect, O. WENDEROTH, Supervising Architect.

**MISSISSIPPI RIVER COMMISSION, Fourth District, U. S. Engineer Office, Queen & Crescent Building, 346 Camp Street, New Orleans, La., May 2, 1914.** Sealed proposals for constructing and delivering the steel hull sternwheel tugboat "Chalmette" will be received at this office until 11 o'clock A. M. June 2, 1914, and then publicly opened. Information on application. C. O. SHERILL, Major, Engineers.

**FORT MYER, VA., May 15, 1914.** Sealed proposals in triplicate for reconstructing heavy traffic road from Signal Corps Post to point near Administration Building, Fort Myer, Va., will be received here until 11 A. M. June 1, 1914, and then opened. Information furnished on application. Envelopes containing proposals should be indorsed "Proposals for Reconstructing Heavy Traffic Road," and addressed to Quartermaster.

## BOND OFFERINGS

### Bonds For Sale

City of Shamrock \$15,000 5 per cent. waterworks bonds for sale. Only indebtedness. Permanent town. Good surrounding country. Address H. B. Hill, City Secretary, Shamrock, Texas.

### \$6000 5% Bonds

St. Matthews, S. C., May 12, 1914. Sealed bids will be opened on Friday, May 29, 1914, 12 o'clock M., at the office of J. H. Loryea, Clerk, St. Matthews, S. C., for the sale of six thousand (\$6000) dollars 20-year coupon bonds of School District No. 8, Calhoun county, South Carolina, said bonds to bear interest at five per cent., payable semi-annually.

J. H. LORYEA, Clerk,  
Board of Trustees District No. 8,  
St. Matthews, S. C.

### \$723,000 Refunding Bonds

San Antonio, Texas, May 13, 1914. For Sale—\$723,000 refunding bonds, being general obligations of the City of San Antonio, and being one to forty year serial bonds, in amounts of \$1000 each, interest payable semi-annually. There are now outstanding against the City of San Antonio, which are now redeemable at the option of the city, the following bonds:

When issued.	Time.	Purpose of issue.	Rate of interest payable semi-annually.	Total amount of issue.
1887, August 1,	20-30 years.	Public Improvements, City Hall Building, etc.	5%	\$150,000.00
1889, July 1,	20-30 years.	Public Improvements	6%	50,000.00
1889, July 1,	20-30 years.	Street Improvements	5%	250,000.00
1889, September 15,	20-30 years.	Sidewalk Improvements	5%	10,000.00
1890, September 15,	20-30 years.	Construction of Bridges	5%	100,000.00
1890, September 15,	20-30 years.	Property Condemned, etc.	5%	75,000.00
1890, September 15,	20-30 years.	Sidewalk Improvements	5%	10,000.00
1890, September 15,	20-30 years.	Street Improvements	5%	50,000.00
1890, September 15,	20-30 years.	Erection of School Buildings	5%	50,000.00
1890, September 15,	20-30 years.	Electric Fire Alarm System	5%	25,000.00

The said city desires to call in said bonds and issue in their stead said \$723,000 of one to forty-year serial bonds. The city wants said refunding bonds to bear as low a rate of interest as the city can sell them for. On the first day of June, at 4 o'clock P. M., in the City Council Room in the City of San Antonio, Texas, the Mayor and City Council will entertain bids to purchase said refunding bonds. The responsible bidder who offers the lowest rate of interest on said bonds will be awarded the same. The city reserves the right to reject any and all bids, and the city will conduct said sale as an auction, and to adjourn said meeting at any time the City Council may deem best, and to conclude the taking of bids at any time the City Council may deem best. Each bidder at the time he submits his proposition, and before any bid from him will be entertained, must deposit with the Mayor a certified check of \$15,000. The legality of said refunding bonds is to be passed on by Wood & Oakley of Chicago, or by Dillon, Thomson & Clay of New York City, and the bidder will be required to pay all expenses to said attorneys for preparing all necessary ordinances and for doing all legal work in connection of the calling in of any of said bonds and the issuance of said refunding bonds, and also the expenses of lithographing said refunding bonds. If any portion of said \$723,000 of refunding bonds for any legal reason cannot be sold, the bidder will be required to accept said other bonds at the price named in his proposition.

For further information write the undersigned.

FRIED FRIES,  
City Clerk City of San Antonio, Texas.

## Bonds For Sale

Road District No. 1 of Hunt county, Texas, has \$400,000 forty-year 5 per cent. annual interest-bearing Road Improvement Bonds for sale. If you are interested, address W. M. HENLY, County Auditor, Hunt County, Greenville, Tex.

## \$20,000 School Bonds For Sale

Cherryville, N. C. The town of Cherryville, N. C., has bonds to amount of \$20,000, to run thirty years from date, with interest payable semi-annually at the rate of five per cent. Bids will be received up to 1 o'clock P. M. June 15, 1914. The town reserves right to reject any or all bids. Address J. B. Houser.

## Bonds For Sale

McComb City, Miss. The Board of Mayor and Selectmen of McComb City, Miss., will sell \$20,000 of "City Hall" bonds on June 2, 1914, at 8 o'clock P. M. A certified check for \$500 must accompany the bid to receive consideration. The Board reserves all rights. J. DOCK HARRELL, City Clerk.

## Notice of Bond Sale

State of South Carolina, County of Jasper. Sealed bids will be received by the Board of County Commissioners of Jasper County, South Carolina, at the office of W. J. Ellis, Clerk of the Circuit Court, at Ridgeland, South Carolina, on or before twelve o'clock noon on Monday, June 8, 1914, for an issue of forty thousand (\$40,000) dollars of bonds for Courthouse and Jail, said bonds to bear four (4) per cent. interest, payable semi-annually, principal payable forty years after July 1, 1914, with the privilege of redeeming after twenty years, all bids to be publicly opened by said County Commissioners at twelve o'clock noon June 8, 1914. Each bid must be accompanied by a certified check in the sum of five hundred (\$500) dollars, upon a National bank, payable to the order of the Clerk of the Circuit Court of Jasper County. The Commissioners reserve the right to reject any and all bids. Dated: May 8, 1914. G. L. LANGFORD, Chairman, Board of County Commissioners.

## \$50,000 City of Sanford (Florida) Refunding Bonds

Notice is hereby given that sealed proposals will be received by the Board of Bond Trustees of Sanford, Florida, until 5 o'clock P. M. on the 25TH DAY OF MAY, A. D. 1914, at Sanford, Florida, for the purchase of Fifty Thousand Dollars City of Sanford Refunding Bonds; said Bonds to bear rate of interest not to exceed 6 per cent., and are dated July 1, 1914, interest payable semi-annually, January and July, said issue consisting of Ten Bonds of the denomination of One Thousand Dollars each, maturing in ten years; Fifteen Bonds of the denomination of One Thousand Dollars each, maturing in twenty years; Twenty-five Bonds of the denomination of One Thousand Dollars each, maturing in thirty years. Principal and interest coupons are payable at the National Park Bank, New York City.

All bids must be accompanied with a certified check for 1 per cent. of the amount of said issue. The Board of Bond Trustees reserve the right to reject any and all bids. S. O. CHASE, GEO. H. FERNALD, R. F. WHITNER, Board of Bond Trustees, Sanford, Florida.

## \$50,000 5% Bonds

Hertford, N. C. Sealed bids will be received by the Board of Town Commissioners up to 7:30 o'clock P. M. June 15, 1914, and then opened, for the purchase of the bonds of the Town of Hertford in the sum of fifty thousand dollars (\$50,000), to run for fifty years from their date of issue, bearing interest at the rate of five per cent. per annum, payable semi-annually on the first day of June and on the first day of December, respectively, of each year, which interest shall be evidenced by coupons attached to said bonds. The purpose for which the bonds are issued is as follows: For water-works, seventeen thousand dollars; for sewerage system, thirteen thousand dollars; for electric-light plant, twelve thousand dollars; and for street paving, eight thousand dollars. All bids must be addressed to the Board of Town Commissioners, Hertford, North Carolina, and be accompanied by a certified check in the sum of five hundred dollars. The Town of Hertford reserves the right to reject any and all bids. The bonds are to be prepared at the expense of purchaser.

For further information apply to W. E. White, Mayor, or W. C. Winslow, Clerk, Hertford, North Carolina.

W. E. WHITE, Mayor.  
W. C. WINSLOW, Clerk.